

"O FORTUNATOS NIMIUM SUA SI BONA NORINT "AGRICOLAS."

NEW SERIES.

APRIL, 1873. [Vol. II—No. 4.

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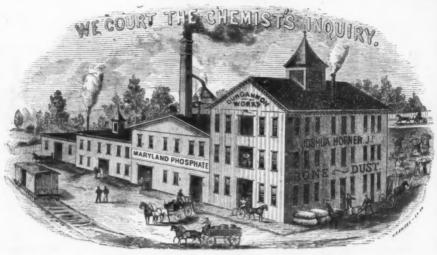
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[ESTABLISHED 1848.]



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in its preparation, and we claim for it the greatest benefit to the farmer from the smallest outlay.

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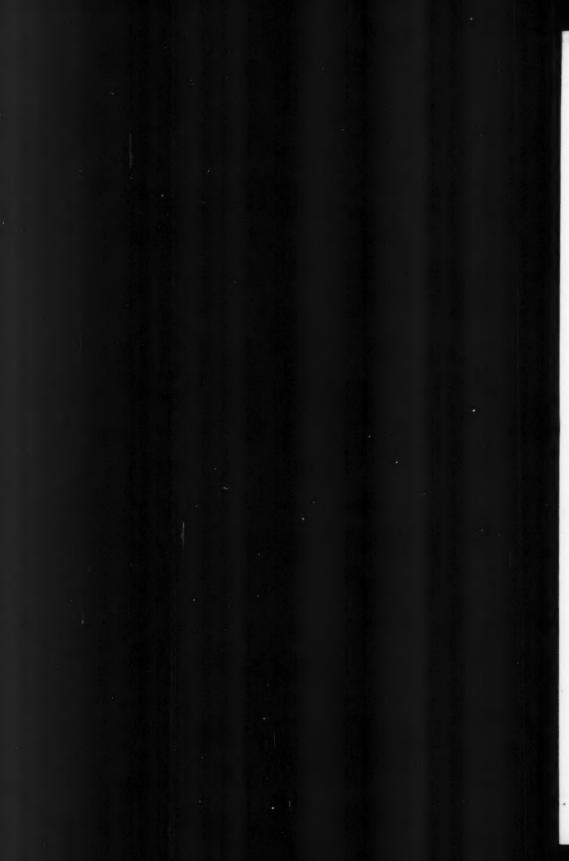
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# AMERICAN FARMER

AND

## RURAL REGISTER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS"
Vira.

PUBLISHED BY SAML. SANDS & SON, BALTIMORE, MD.

Vol. II.-No. 4.]

APRIL, 1873.

INEW SERIES.

## Immigration.

In a recent No. of the American Furmer our correspondent "Laborer" pointed to the superior advantages of emigration to the Southern States over the West, and in addition to cogent reasons to prove the statements, he gave his own experience. We are glad to find our Board of Trade, in Baltimore, is awakening to the importance of something being done in behalf of our agricultural interests in this matter. The states of Maryland and Virginia are peculiarly suited for the agriculturists of Great Britain. In a recent conversation with an English gentleman, who has been sojourning in Virginia for some time past, he informed us that not only were the people of that state more like those of England than any others he had seen in his rambles through the U. States, but that the general contour of the territory had also a greater resemblance than that of any other state to his native land, and he advises us that many of his countrymen are settling there.

There is now an immense upheaving among the agricultural classes of England, the like whereof was never before known—from generation to generation the laboring classes having been identified with the great landholders almost as closely as were the serfs of Russia with their nobles in former years—but the great advance in all articles of food, supplemented within the last year or two by that in fuel also, has caused a commotion not easily to be appeared, since the wages of the poor have not increased in the same ratio with the cost of the necessaries of life.

In one of our recent English papers we find a statement made upon good authority, that a league has been formed for the emigration of half a million of agricultural laborers, one-fifth of whom were destined for Minnesota, in the U.S., the others to be sent to distant colonies of the mother country. Some of those removing are possessed of small means, to enable them to get under way in their new homes, but the great body are, doubtless, destitute of even the means of removal.

In a recent number of the Country Gentleman we find a communication from Mr. Carr, giving an undoubtedly correct statement of a plan for settling an immense English colony in Kansas, by Mr. Geo. Grant, for 20 years the senior partner of Grant & Gask, of Oxford street, London, a man of large means and philanthropic ideas. The land has been bought from our government, and is supposed to be the largest tract of land owned by one individual in the U.S., comprising alternate sections through a tract of 216 miles, and Mr. G. expects to purchase the other, intermediate sections, though this cannot be effected without the action of Congress. This movement of Mr. G. is purely of a philanthropic character; and he says in reply to the question why he should purchase such a body of land in the U. S., that-

"Having been long connected with philanthropic efforts in England, I am led to believe that many very worthy workingmen, who earn but a mere subsistence at home, would gladly emigrate to this country, could they feel reasonably sure beforehand of securing a foothold here and getting ahead, without being made to undergo the perils of Castle Garden first, and subsequently run the gauntlet of Western land jobbers. In England we have too little land for the population; here the reverse is the case. It should equalize itself by a healthy, not a forced emigration. Those who leave England because they must, are not of the class most likely to succeed, or to develop properly the country they go to."

All the preliminary arrangements are being made by Mr. Grant, and buildings are now being erected for the reception of the immigrants-laws are to be framed for the moral and intellectual training of the people; a railway station has been established on the Pacific Railway, called Victoria, and in the spring the most active operations will commence in regard to settling the colony .-Among other preparations, Mr. Grant has not neglected the establishing in his territory of the means of rearing fine cattle, having purchased two young bulls of the short-horn breed, from Mr. Cochrane, of Canada, paying him a high price for one of Booth, and another of Bates blood. He has bought in addition a large number of pure-bred Berkshire hogs, believing those of Mr. Cochrane's breeding to be equal to any he could procure in England. Most of the live stock, however, he intends to ship from England in the spring. and seems fully determined to be second to no breeder in the States, either in the quantity of quality of his stock.

We lay these facts before the people of the South, to show that now is the time to take hold of the feeling already awakened in England, to endeavor to lead the tide now beginning to flow towards their own section. In addition to what we have given above, we amnex a couple of paragraphs from other sources, as follows:—

"The agricultural laborers of England, long distinguished for their stolld ignorance and patient endurance, are becoming restive. Many of them refuse to except the wages offered by the farmers, and are consequently out of work. Emigration to Brazil is threatened. Why not to the United States?"

"A commission was to have left Bremen in the middle of January for the purpose of purchasing land for large colonies who contemplate emigrating to the U. S. in the Spring; also, to make reports upon the particular section of the United States, both for climate and soil, which is best adapted to Germans."

We annex a letter cut from one of the English papers received at the office of the Farmer, written by an English clergyman now in Va., who shows the advantages offered to settlers in that state, and draws a very satisfactory picture of the case and rapidity with which the soils of the Old Dominion, called worn-out, may be restored to a fertility unsurpassed by those of the West. The paper is somewhat lengthy, but we are sure it will be read with interest as the result of a calm survey by an apparently disinterested observer:

CHRISTIANSVILLE, Mecklenburg Co., Va., U. S. A., Jan. 11, 1873.

MY DEAR FRIEND,-As you will see, my last letter referred to the Western and North Western States of America. In this one I intend to speak of the South, and chiefly of Virginia. And what I shall say will be the result, largely of my own observation. The most serious disadvantage the farmer will find in coming here is the impoverished condition of much of the soil. This is the result of the bad system of culture followed during the days of slavery. But these worn-out lands are easily restored; their response to a little good cultivation and manure is almost magical, so that three or four years of proper treatment will restore them to a fertility probably equal to most of the good lands in the West. It is a mistake to suppose that all the lands of the South are depleted. The whole, or nearly so, have been badly treated, and sadly ne-glected, but not exhausted. Besides, quite one-third of the land is occupied by the origi-nal forest, and has never suffered any reduction of its fertility.

The effect of chimatic conditions on vegetation here is remarkable. They seem largely to supply the lack of fertility in the soil; so that soil so exhausted as some of it is, would yield nothing in Northern and Western States; here it continues to produce food for

man and beast.

I believe I have now told you of the chief obstacles to the farmer in this country. There are other small matters that will be remedied by time and the influx of population. And these same conditions will operate also on most of the conditions of advantage, and make them more and more contributory to the far-

mer's prosperity

The geographical position of Virginia is of incalculable value, and must make itself more and more perceptible in the prosperity of the State as time advances. Situated between the parallels of 36° 30 and 39° 40 of north latitude it is on the line of California and the Holy Land, and, therefore, occupies that position north of the equator most likely to have those climatic conditions so favorable for healthy and diversified animal and vegetable life. Its situation in relation to the West is that of an eastward outlet to the sea and the world, and thus will, one day, be on the line of communication between the eastern seaboard cities of this country, and Europe on the one hand, and Kentucky, Ohio, Missouri,

Indiana, Illinois, Wisconsin, Minnesota, Iowa,

California, &c., on the other.

The mineral deposits are spread through a large portion of the State; these, with the abundant water-power, must form the basis of a large manufacturing population some Indeed, considering the three conditions of climate, geographical situation, and manufacturing capability, it is impossible not to foresee a future of greatness for Virginia.

Christiansville, where I now reside, is in the county of Mecklenburg, which is one of the most southern in the State, and so situated midway between the mountains and the sea, that it enjoys, to a large extent, freedom from those violent and extreme atmospheric disturbances which trouble so many regions. To the same circumstances is to be ascribed the equable climate which this county enjoys, as compared with many other parts of even this State. We are here situated at the head of the celebrated Roanoke valley, and have running through this county the Staunton, Dan, Meherrin, and Roanoke rivers, besides creeks innumerable.

A railway is now being built from the Richmond and Danville road through this town to Clarksville on the Roanoke river. Another is projected to make its junction here and join the Norfolk and Petersburg line; and another, which is to go through, or near, this place and connect Norfolk with San Francisco.

The ground of this neighborhood is the much-valued mulatto soil, with a very fine subsoil of red clay; conditions which are admitted to be the easiest to receive and best to retain improvements. The farms around us are being sold rapidly, and the place is filling up with Northerners, Scotch, and Englishmen.

The market facilities of this State well deserve the attention of anyone seeking a home in America. Should our own State markets be glutted, we are within easy reach, by rail and by water, of New York and the other eastern cities, and of the entire South, where cotton, sugar, and rice occupy the cultivator's attention to the exclusion of the cereals, vege tables and meat, and also of the markets of Europe. Hence the comparatively high prices given for the products of the soil. Corn ranges from 60 to 80 cents, and wheat from a dollar and 60 cents to two dollars the bushel; and there is a similar advance upon the western prices in hay and other things.

My previous remarks will have prepared you for the statement, that the climate of Virginia is a very fine one; it is often truly splendid. In the last summer from March to November we had not a week's rough weather, putting all the rough days together, and yet there were showers in most of the weeks of that time. The winter I presume, is at times as cold as the winter in England, but not so wet. Hence it supplies unusual opportunities for farming work. The summer's heat did not oppress me more than that of England; and, with a very few exceptions, a delicious cool breeze blows every day in the summer. The effects are great salubrity and great fer-

tility of climate, an abundance of fruits and flowers, and those innumerable and indefinable natural conditions in which we delight to dwell, and which will enable anyone of taste. capital, and diligence to build up a beautiful home in a short time.

The society of Virginia is, I judge, superior to that of the Far West; for while in Virginians there is an unpleasing carelessness of appearance, there is under this sloven exterior (I speak now of the country population,) a good amount of scholarly attainments, gentleness, and culture, a politeness of speech and manners, an absence of profanity, and a preference for the people of the Old Country, which to them must be very gratifying.
It is true that in many things they are very,

very far behind the times, but that is more an injury to themselves than a social annoyance.

In the price of labor also, the South has the advantage over the West. The negro works for about one-third of what whitelaborers get in the West, and while it is probable he does not do as much nor as well as white men, yet the difference in the quantity and quality of the labor is not equal to the difference in the wages. A balance is therefore left in favor of the South. The negro is deferential, and when looked after works well, and is as honest as the uneducated population of any country. After a few weeks you become accustomed to the open faces and cease to be affected by their apparition.

It seems to me, that, all things considered, land is as cheap here as in the West. There you get wild treeless land, into which a stake of improvement has never been driven, while here, in the South, you are offered for a little more money, farms, dwellings, and out-houses, with much land into which you can put the plough at once, and parts covered by splendid trees of the original forest, and many other conveniences; so that, with the same expenditure, you have here a much more comfortable and profitable estate than you can get, not in the West only, but perhaps, in any other parts of the country

With kindest regards, your's truly, THOMAS DREW.

## The Value of Kainit (Crude Potash Salts; us a Fertilizer.

In the English Agricultural Gazette there appeared some time since a letter from Mr. J. B. Lawes, the eminent experimentalist in Agricultural Chemistry, giving the results of his tests with the above named material on his farm, where he has been experimenting with it for 30 years.

On Barley there was practically no increase-On Wheat the effect was much more marked, but under such conditions that it cannot be concluded that the use of potash saits for the wheat crop would be advantageous, under the usual conditions of its growth, on moderately clayey soil, which naturally contains a larger amount of potass. With Closer a considerably larger produce was attained by the use of the potash salts, but their use has proved to be so uncertain that he has long since ceased to recommend their application, with a view to profit, to this crop. On Turnips there was some increase of crop, but the value of the increase did not equal the cost of the manure. On Permanent Pasture-land, with natural grasses, the best results of any were attained, the proportion of clover and other leguminous plants being largely increased and a good quality of hay being produced

Mr. Lawes says, that, if farming moderately heavy land with a view to profit, he must say he would not be disposed to spend his money in buying Kainit, this conclusion being deduced not only from the results of experiments on his own farm, but from a knowledge of the results of the application of potash salts in all parts of England for years past. Our knowledge of the available supply of potash in soils of different descriptions is too limited to enable us to say with certainty on what soils Kainit may or may not be applied with profit. It may be safely assumed, however, that it is more likely to be remunerative on sandy or gravelly than on clayey soils, and more especially for roots, clover or other leguminous plants, or potatoes. Used in moderate quantity, it may be of service for grass land which does not receive sufficient dung, and from which hay is taken by the aid of nitrogenous manures, such as ammonia salts or nitrate of soda. Kainit is much superior as manure to common salt, and those who find the latter profitable will find it probably worth while to pay the extra price for Kainit. Mr. Lawes feels bound to say he does not anticipate much benefit from a general use of Kainit in agriculture. In isolated cases it will doubtless pay for the cost of its application, but in a much larger number the value of the increased crop will be less than the cost of the manure.

These experiments of Mr. Lawes lead to the same results as those of Prof. Voelcker, the distinguished chemist, who says that, contrary to his earlier expectations, the application of salts of potash to heavy clay land, whether to roots or clover, has, as a rule, proved decidedly unremunerative, the soil evidently containing a good supply of this element. He has not met a single instance where they have produced good effects on arable clay land, but on light and sandy soils they have been used with advantage.

On another page will be found some account of these salts by an intelligent correspondent of the Furmer in Germany, whose opinion as to the relative cheapness of the higher grades compared with Kainit, where an application of Potash to the soil is desired, is, we may add, the same that we have ourselyes for a long time entertained.

Guano on Gray Lands and Rust in Cotton.

Mr. David Dickson, the well known and successful cotton planter of Georgia, opposes in the "Rural Carolinian" for March, the opinion of Dr. E. M. Pendleton, that guano does not succeed on gray land; and we take pleasure in transferring to our pages the paper of this eminent agriculturist. He says of Dr. P's views:

I do not concur with him in regard to guano not succeeding on gray lands. Gray land is good for cotton, and suitable for guano if it has a clay foundation. Land that is sure to make a full crop according to capacity, is sure to do well with manures of any kind containing plant-food.

I disagree with the Doctor about ammonia being stimulating. It acts at once, because it is the most essential crop feeder, and is most soluble. There is no such thing as stimulating plants. Feed them, and they will be sure to

grow if treated right.

Dr. Pendleton is mistaken about my ever consulting a chemist in regard to my compound, or salt and plaster, or anything else; though I know and appreciate the value of chemistry, and the sciences generally, to the world. They are accomplishing wonders. Salt and plaster, from the first to the present, have been a complete success with me. He is also mistaken about muriate of potash being a failure. That also is a success, as all my tenants will bear witness, as well as all others who have seen my crops growing. It is remarkable how two men, G. Ville, in

It is remarkable how two men, G. Ville, in France, and myself here, should agree so nearly about a complete manure, each being ignorant of the other's experiments. I have always classed the essentials of plant-food in this order: Ammonia, phosphoric acid, potash and lime, just as Professor Ville has done. I admit all must be present; and these, if in sufficient quantities, will find the balance in almost any soil. But, besides these four, it is all-important to have sulphur (as in land plaster) and salt to keep the cotton plant healthy and growing.

I have always contended that rust is caused by nothing but poverty of soil, and my practice has fully proved it. The first badly rusted cotton I ever saw, was about fifty-five or fiftyseven years ago. Now I am cultivating the same plat with complete success, making from 2,000 to 3,000 lbs. seed cotton per acre. The rust question is of the first importance

The rust question is of the first importance to the cotton planters, and I say it is caused by poverty of soil, in various ways, but still it is poverty. Causes: 1st. Leaching of land by it being springy and by being porous, and heavy rains sinking all soluble matter below the roots of the cotton plant. 2. General exhaustion of all the plant-food. 3. Letting it get grassy too early, or stopping work too soon.

Our Star Compound, made in Augusta, is a

Our Star Compound, made in Augusta, is a complete remedy on all dry land, that which is springy must be drained. The rust weed

will point out every acre of land that will rust. Rust in cotton is completely under the

planter's control.

In the crop of one of my tenants, in 1871, there was a wet part in one of his patches that got very grassy. He ploughed one-half over with a sweep, and it took on bolls finely, but got overtaxed and became rusted, but still made a fair crop. On the other half he took a turning plough and went in deep, throwing the dirt all in the middle, and causing the cotton to throw off what bolls it had then made, and it failed to set any for a good while. After the plant recovered it grew finely and commenced to take on bolls, and did not rust but made nothing, frost killing all. That ploughing was the last, except a middle sweep furrow.

A heavy load of bolls early, will make cotton rust on thin sandy land from exhaustion, if not well sustained with a good fertilizing

compound.

Last year, on the top of a sand hill, one of my tenants left out about twenty rows without manure. He stopped ploughing about the twentieth of July. The manured rows shaded the ground, kept down the crow-foot grass and did well, making 1,000 to 1,200 seed cotton per acre. The rows unmanured were overrun with the grass, rusted, and did not make at the rate of 100 lbs per acre.

Two years ago, one of my tenants had a cow-pen in the middle of one of my fields, in which cotton rusted badly when not properly manured. The next year planted it in cotton. That where the cow-pen was did not rust, and

made a fine crop.

The great remedies for rust are the spade, clay scattered over, rotation of crops, rest, and heavy manuring. These remedies are sure.

We could soon be all independent if we would quit begging for immigrants and capital, and take matters in our own hands.

We want nothing but machinery and guanos to make us independent, and we should use manure wisely, or it may work an injury. If the whole of our manure is put on cotton we shall make too much. If we make all we need at home, one-half the labor in cotton will make more money than all. Make up your minds that we can accomplish any hing we need without any more men or foreign dollars. Take hold, and we shall soon be prosperous. Then we shall own our own country and our money.

Hold to your land with a death grip, for your children and for the native landless. Let charity begin at home. You will never make money out of immigration.

Sparta, Ga. DAVID DICKSON.

A SUBSCRIBER to the Farmer in N. C., writes us: I am making a struggle for success in farming on a farm of 215 acres, and in debt \$800 at 15 per cent. interest: Last year, myself and two little boys and two horses made 12 bales cotton, 800 bushels of corn and oats, and wheat enough for home use.

## Agricultural Calendar.

## Work for the Month-April.

March winds have had full sway, and now the busiest season of the year is upon us with all its duties-time presses, and every hour lost imperils the crops. Let not the demands of the time, however, be made an excuse for negligent preparation of the soil, the imperfect manuring of the fields, or the slovenly pitching of the crops. Better, by far, put in a less area and do it well than seek to extend your operations at the cost of thoroughness and efficiency. With complete preparation, good tillage, and the grasping of the right moment for getting in your crops, all is done that may be, by you, and the rest must be left to a higher hand, from which is promised the early and the latter rain. Nevertheless, the farmer makes in some degree his own seasons, and he who is best prepared for the worst, fares still the better if the best should come. But we pass at once to the work which is before us.

Corn.—This everywhere is the great American crop, the mainstay and support of all our farming operations, and if we err not in our estimate of its importance, it is in most sections in which the Farmer goes, the most profitable one. It is, in all events, the most indispensable, and we take up the cry for even the cotton country to plant more corn. But before planting comes the preparation, and this must be thorough to reach the success which should attend this crop.

Deep ploughing and perfect pulverization of the soil and ample manuring are the elements of success in profitably growing the corn crop. The more thoroughly the preliminary work is done, the more easy will be the after-culture, and the more the manures are concentrated on smaller areas of land the better generally will be your returns and the

less the east of the labor required.

Corn is a gross feeder, and land for its growth ean searcely be too rich, though we fear this statement for most of the patrons of the Patrons of the Patrons is a superfluous one, since there is generally in these days little danger of making the soil too rich for any of our tillage crops. Corn contains a very large per centage of phosphoric acid, potash, soda and lime, besides smaller quantities of magnesia, chlorine, sulphuric acid, and a great deal of silicic acid, which last, however, is afforded by every soil. The suitable pabulum for the nourishment of the plant is therefore found in all substances which contain these elements—as for example, bone dust, wood ashes, salt, gyp-

sum or plaster, and perhaps, above all, stable or barn-yard manure, which is nature's "complete manure," but which needs, in most cases. to be supplemented by the other materials named, or those which, obtainable on every farm, have been incorporated with the dung from the stables, yards and pens, and form a compost largely increased in quantity and not much less valuable in quality than the natural manure itself. It is now in most cases too late for the present corn crop to make composts, but those who, following the advice we have hitherto given, and again and again re-peated, of gathering up all the wasting substances on and about the farm, which ever had life, and composting them with the materials from their stock yards and stables, their pig pens and poultry houses, the slops from their kitchens and chambers, the ashes from the fires, will now have a pile which cannot fail to be useful and profitable in its application to the corn crop. To those who have neglected the gathering together of these valuable but wasting substances, and have allowed them to be trittered away, doing injury rather than good, we say repent of your indolence or inattention and resolve henceforward to do better in this respect, to the advantage of your crop, and to your own. We occasionally give formulas for applications of manures to the various crops, and in our last issue will be found a number intended for the corn crop; but none of our readers of course will consider that these are given in fixed and inviolable proportions. We perhaps aim high, and those will do best who come nearest the mark we set; but we mean to express the limit on neither side, and those who cannot give as much to a crop as we suggest, ought to come as near to it as they can; whilst those who can exceed our dose need have no hesitancy in doing so. Let all remember, however, that it is a cardinal point with us to sacrifice acreage to thoroughness-to apply your manures on less rather than dissipate them on more land than you would wish to devote to each crop.

The land properly prepared to secure a good depth for the roots to run and feed in, and a fine tilth gained, that the dews and rain may have easy admittance to the soil, and that the air may penetrate it with its warmth and vivifying influence, the crop is to be planted. If the corn is to be drilled, run the drills north and south, if possible, their distance apart from three to four feet, according to the land, and the plants 6 to 12 inches apart. If in hills, plant from three to four and a half feet apart, and three or four or even five plants may be left to the hill, this being regulated, of course, by the nature of the soil, and also by the variety of the seed. The closer the planting of course the more liberal must be the manuring, not only in the hill, but broadcasted.

Manures.—When to be secured, there is no better addition to such supplies of barn-yard manures and well prepared and well decomposed composts as may be provided, and which, of course, are the base of all manuring

for such a gross feeder as the corn crop, than ashes, plaster, salt, bone dust and Peruvian guano. We speak now of manure for broadcasting. From 50 to 100 lbs. of guano, 75 to 150 of bone dust, 5 to 10 bushels ashes, 2 of salt and 1 of plaster, would be a dressing which would make a crop of itself on land in any reasonable heart; or half the lesser quantities added to your supplies of stable manure and compost, would make a most valuable and profitable addition to them. It is well understood that the corn crop will seize upon and appropriate nourishment from rougher and greener manure than would be suitable for almost any other crop, and that such may be freely used, this being specially true of such manures applied to light soils.

Of the home-made composts and barn-vard manure, we may say the more the better; but, under any circumstances, add to whatever you do apply 2 bushels of salt and 1 of plaster to the acre. Salt seems to be an application peculiarly suited as a manure to the corn crop, and will besides be useful in preventing the ravages of the cut-worm and grub. Coarse salt is now worth in this market about \$1.80 per sack of 31 bushels, and refuse salt from the packers is to be had at about 35 cents per bushel; the latter being as suitable if not more valuable for agricultural purposes than the other. For manuring in the hill, mix 5 bushels of ashes, 1 each of salt and plaster, and put a handful in each hill, or scatter it lightly along the drills. An addition to the above of 50 lbs. of either guano or bone dust would add a stimulating element which would give the grain a good start. The mixture in case guano is used, should not come into immediate contact with the seed.

The seed should be selected with care from earliest maturing and most perfect ears, and should be soaked before planting for about 24 hours in a solution of saltpetre, as a protection against insects and vermin. Worms are said to be kept away by stirring the seed in boiling tar, till each seed is thinly coated with it, about half a pint of the tar being required for a peck of seed. We have in past numbers referred so much at length to this crop that we add nothing more at present, except to repeat our injunction to plough deep and pulverize and prepare your soil seell; get manure, and as much as you can, and what you may lack of home-made, supply with purchased fertilizers as far as practicable, and get good seed.

See article in this issue on Corn Culture in Virginia by our correspondent "Piedmont," who is one of the best farmers of his section, and note our offer elsewhere to present our friends with small trial packages of an improved variety of seed corn, which comes to us endorsed by the highest authority as to its prolific character.

Cultivation of the erop.—Of course it is plain to every one that the benefits to be derived from the perfect preparation and generous manuring of the soil which are recommended will be very small, if the crop is not after-

wards kept clean from the time the seed is in After the ground until it is ready to lay by. the first or second working we urgently recommend that the cultivator be substituted for the plough. The laceration and breaking of the roots by the latter implement cannot be avoided, and it cannot but lessen the absorbing and elaborating powers of the plants. For those who have the implement, there is no cheaper or more efficacious way of cultivating than with the Thomas Smoothing Harrow, but the land must be in fair order, and the operation must be begun early and repeated at short intervals. It 'akes some pluck to drive it over corn 5 inches high, but those who have never tried it will be surprised at its work. We hope soon to hear our friend McCue's report on this point.

Potatoes .- Here the virtue of deep ploughing will be as manifest in most cases as with corn. Do not put fresh green stable manure on your potatoes, but old well-decomposed manure, bone dust, ashes, plaster and salt, in such quantities and proportions as you can command. See article on another page by Mr. Emory, on Potato Culture.— Planting in hills, as he recommends, may not always produce so large a crop as in drills, but the crop is more conveniently dug. Early Goodrich and Early Rose are still favorite and

generally reliable varieties.

One of the easiest methods of cultivating potatoes is to keep the Thomas Harrow going over the land every few days from a week af-ter planting until the vines are five or six inches high. It keeps the ground open and light, and the labor of cultivating the crop is scarce one-half of that performed in any other way. Aim to make a good crop. Scarcely any crop on the farm pays better, if the yield is a large one, and the expenses of a full crop are little above those of a very poor one.

Clover.-Seed of this invaluable plant may still be sown. Many prefer to sow in February upon the snow, which in melting carries it down into the crevices of the soil, but others wait for the frost to be entirely out of the ground and the fields dry enough to allow of horses going over them without poaching. Sow about 12 lbs. to the acre, and harrow and roll. The harrowing, if the seed is nown on wheat, instead of being an injury, as some fear, will prove a benefit to the grain.

Orchard Grass is a very valuable grass, ready for cutting with clover, and Two bushels of seed should be sown with it. to the acre are generally sown, or half that when sown with clover.

Lucerne.-We have said so much about this desirable forage plant, that little remains except to give emphasis to our oft-repeated statement of its value, and to caution our renders against sowing it unless they are prepared to give it every advantage of cultiva-tion and manuring, and unless their land is in good condition. Under any other circumstances it is useless to sow it with any anticipations of success-it may live and grow, but heavy yields and repeated cuttings will not be attained. A plant furnishing so large quantities of forage as this, must have large supplies of food, besides what it extracts from the air and the subsoil, and it must not be liable to be run out by weeds.

In this State and Virginia the present is probably the best month to sow Luceric, though it may be sown in May; further south it possibly will succeed better when sown in September. Whenever practicable it should September. Whenever practicable it should be sown in drills, to be readier kept clean. See Mr. Coffin's article on this plant in last

month's No.

## Millet and Hungarian Grass.

-These plants are closely allied in their nature, and in Maryland and to the north of us seem to succeed equally well, while in some portions of the South the latter is poorly esteemed and makes very little hay. Our valued friend, Major Geo. Seaborn, of Pendleton, S. C., wrote us last spring requesting us to obtain for him some seed of the common millet, Panicum miliaceum, stating that in ordering some the year previously, from a seed house in Philadelphia, he had received in its stead seed of the "Hungarian grass," which proved a total failure. In compliance with his de-sire we addressed a well-known and reliable house in N. York, stating precisely what was wanted and what not. After the time for harvesting the crop we wrote our venerable friend Seaborn for the results, and his response was to the effect that this seed, too, notwithstanding the ground was well prepared and generously manured, produced not more than 50 lbs. of hay to the acre, and proved to be the same "trifling Hungarian grass."

We think it apparent that the seedsmen either do not know the distinction in the seed or that they are indifferent in keeping them separate. We had a similar experience to that given above, with a lady farmer in N. Carolina, to whom we sent some millet, which she sowed for green food for her carriage horses, and here is the report she makes of it; "It made very pretty little heads about large enough to get between the bars of a bird cage, growing feebly a foot or eighteen inches high." Yet we find that the Rural Alabamian recommends the Hungarian grass in the highest terms, stating that for quick and certain results and valuable qualities for hay, it knows of nothing equal to it. It recommends sowing the seed on rich and well prepared soil, about the middle of April, at the rate of three pecks to the acre, applying broadcast, at time of sowing, 500 to 1000 lbs. of some reliable fertilizer, and harrowing in seed and manure together.

Millet seems to succeed everywhere with

any reasonably fair treatment, and if Southern farmers would sow it, they could easily supply themselves with an abundant supply of forage for their stock and render themselves far less dependent upon Northern meadows for food for their horses and mules. It can be sown early in the spring, and will produce a succession of crops, by continued sowings, up to the middle of July in this latitude. Scarcely more than six weeks are required for its growth, and the crop should be cut, if for hay, when the tops of the seeds begin to ripen; if saved for seed, it may stand until the seeds become brown.

Millet requires a good soil, well prepared and as rich as may be made. Deep ploughing is effective in the cultivation of this crop against drouth, as it is with almost all others. There is nothing better as a manurial application than a mixture of bone dust and Peruvian guano, or a good superphosphate.-Barn-yard manure, when used, should be well rotted. Four or five pecks of seed are sufficient to an acre when hay is the object; when sown for the seed, which when ground is nutritious and fattening, rather more seed

should be sown.

There are a number of varieties of millet, but our remarks above apply to that commonly in use, known botanically as Panicum miliaceum, which is a native of a warm country, and eminently adapted for use at the South, where indeed it is sometimes cut several times from the same sowing in a season, resembling in that respect, lucerne, though it differs from that plant in being an annual, which is the only objection to its wider use. However, of its great value there can be no doubt, and we hope all of our readers who can do so will sow at least a small patch of it, if only as an experiment to test its adaptability to their situation. We only add that the hay it makes is excellent in quality, much relished by cattle and horses, and frequently reaches three and four tons to the acre in quantity.

Hungarian grass is usually sown in this latitude from the first of May to the middle The soil must be well prepared, as of June. with millet, if the crop is to be a profitable one. About half a bushel of seed to the acre is the right quantity. It makes excellent feed for horses as well as cattle, and is used green or is dried for hay. In quality it is superior, and its yield varies from 1½ to 3 tons to the acre. It is worthy of a trial by all who have a scant supply of forage, either green or dry.

Oats .- It will be the work of first necessity to get in at once this crop wherever it has not been already sown. As soon as the frost is out and the ground dry enough to be ploughed, the seed should go in. This crop is too much neglected generally, but it is certainly one which well repays any attention, care and nutriment given it. We have already enlarged sufficiently on this point, and refer our readers to our March and February numbers.

Barley .- This grain will grow on a soil too light for full crops of wheat, but it signally fails unless the land is drained of its superfluous moisture. It should be sown as early as may be, the soil having been well prepared by deep ploughing, thorough har-rowing and rolling. A deep mellow loam, well tilled, will produce fine crops of barley without any very lavish expenditure of manure, but scarce any soil on which it is apt to be sown but what will yield remunerative returns for an application of 100 lbs. of guano and 200 lbs. of bone dust to the acre; or half those quantities and ten double cart loads of well decomposed (not green) barn-yard manure; or from 200 to 300 lbs. of a good superphosphate. The quantity of seed per acre is two bushels. Besides the large and ever-increasing demand for barley from the maltsters, it is an excellent feed, when chopped, for horses. They make great crops of barley in Carroll Co., in this State, and we should like to hear from some of our friends there as to their mode of cultivation. Allen recommends rolling when the plants are four or five inches high, if the ground is dry and not compact.

Root Crops.-In referring now to this too much neglected branch of farm crops, we urge upon all our readers the propriety of their making a trial, if upon ever so small a scale, of these important and healthful articles of nutriment for their stock. Every consideration of humanity and self-interest concur in pointing to the usefulness of roots as a part of the provision for next winter's keep of horses, cattle, sheep and even hogs. Nothing can be more relished by any class of stock than the succulent food which they furnish, and as an alterative and refreshing change in the diet of horses and cows they will be of unmeasured advantage, even casting aside the increased lacteal flow in milk cows, and leaving out of sight the absolute necessity for

some such food for sheep.

Let no one complain either of the unsuitability of soil or climate for these crops, but let the readers of the Farmer glance at Mr. Bethune's experience, as given on another page of this issue, and let them consider the success which has attended Mr. Coffin's root growing in Prince George's Co. of this State, where we last fall saw, grown on a soil, naturally almost as unpromising as could possibly have been found for the purpose, and in a very unfavorable season, crops of mangels and ruta bagas certainly reaching near to if not over 800 bushels—or 20 tons—of each to the acre. Our lamented friend, Mr. Gowen, than whom no one was a better judge of the circumstances of the farming communities in the South, and the adaptation of particular crops to suit their needs, wrote us over and over again, commending our efforts to stir up a greater interest in the growing of roots and exhorting us to continue to emphatically recommend the adoption of their cultivation as a part of the system pursued on every well directed farm. His own practice agreed with his counsel to others, and we saw on his estate such crops as we have seen nowhere else in this country.

Sugar Beets .- No root is more certain of a crop, and none yields more food than these. They are excellent keepers, nutritious, and great promoters of the flow of milk in cows and ewes. The seed should be sown as early as practicable, in drills two to two and a half feet apart. About four pounds of seed will be sufficient for an acre, and it will germinate quicker if put in boiling water before sowing, and afterwards rolled in plaster to dry. They are best sown by means of one of the numerous seed drills now to be found at every implement store. The seed should be sown thick to save the necessity and trouble of transplanting to fill any vacancies, and afterwards thinned so that the beets may stand about 8 to 10 inches apart.

To grow the crop the land must be deep, rich and well cultivated. The soil best adapted to them is a good strong loam, well manured and well drained. The manure best suited to this crop is well rotted stable manure or compost, and there is no danger of putting too much on the land.

The ground must be kept light and well and deeply stirred. It is said that whatever the amount of the crop on the 1st of September, the yield at harvest will be just double that amount, and this being the case, it is of importance to push the crop forward that at the date named it may be as promising as possible.

Mangel-Wurzels.—These roots prefer the same soil as the beet and require the same general treatment. They should have more space, and in thinning out should stand not closer then 12 inches in the rows, and the drills two feet and a half apart.

The mangel, like the sugar beet, delights in a rich soil and will succeed to perfection in none other. Bone dust, superphosphates, well rotted compost, are all suitable applications for the land on which the crop is to be grown. On stiff clayey soil, rough stable manure may be used with advantage.

The seed should be treated in the same way as recommended for those of sugar beets, and both should be sown as soon as the ground is fairly dry.

Parsnips.—These roots are very nutritious, suited either for the table or for feeding cattle, sheep and swine. They are so hardy that they do not rot even when allowed to remain in the ground exposed to the coldest weather of winter. They succeed best in a deep sandy loam, well ploughed and pulverized. The ground should be thoroughly harrowed and then rolled; shallow furrows

twenty inches apart may be run, and such manure as is used placed in them, turn back the earth and run a roller over them. Then on the top of these rows drill the seed, of which about four lbs. are required to the acre. The plants are to be thinned out to stand 6 or 8 inches apart. The ground must be kept well worked by the cultivator and hoe, and no weeds allowed to grow in the rows. There is very little difference in the varieties. Sow as early as the ground is dry and can be gotten into good order.

Carrots.-These roots are probably the most valuable of any grown on the farm, for all kinds of stock, but the difficulty and expense of producing them, in consequence of the labor required in the early stages of their growth, forbid their being as largely used as their value deserves. They succeed best in a light sandy loam, well worked, rich and free from superfluous moisture. The ground must be well tilled, and ought to be subsoiled. The drills are best prepared and the seed sown as recommended for parsnips. The seed should be mixed with sand and well rubbed together between the hands before sowing, so that they will separate readily. The plants may stand as close together as six inches in the drills, and the latter may be 16 to 20 inches apart. The same manures recommended for the other roots are suitable for this, but the main elements of success are the depth and friability of the soil, and the care with which the rows are kept clean in the early growth of the The seed are sometimes so long in plants. germinating, that the weeds get a start of the carrots, and as there is nothing to mark the rows, it is a tedious and troublesome job afterwards to clear out the invaders. A plan which we have practiced with success in a small way, when the rows were not more than 200 feet long, was to mix with the carrot seed, radish seed, which soon beginning to grow, will mark the rows and thus enable the hoe to be put to work sometimes before the carrots are out of the ground. Of varieties the best probably is the Long Orange, though the Altringham is a greater cropper, but not so nutritious. It is not necessary to sow the seed of carrots as early as those of the other roots named, it being preferable to wait till the ground becomes warmed.

Corn Fodder.—We earnestly recommend the sowing of corn either for green food, or for curing for winter. None who have ever used it green in August and early September when the pastures fail, or of those who soil their milk stock either wholly or partially, will probably need any urging from us to sow a liberal breadth of it. Those who have not tried it we hope will this season give it a test; there is certainly nothing more relished by cows and nothing which will keep up a flow of milk in the hottest part of the summer—especially if a little meal and bran be fed with it.

Properly cured for winter it is equal in value, we believe, to good hay and is as much liked

by stock of all kinds.

Corn for soiling or for caring is sown generally broadcast and ploughed or harrowed in; but it is preferably grown in drills 2½ or 3 feet apart, and worked several times before cutting, which should be done when fully in tassel. About 3 bushels of seed is the right quantity for an acre, and the land ought to be as rich as your supplies of manures will allow. And we recommend that such as is to be cured be sown early—that for feeding green may be sown in succession up to the 1st of August.

Meadows and Permanent
Pastures that are moss bound and need
renovating can be much improved by going
over them with a heavy harrow two or three
times each way, and then putting upon them
a mixture of 10 bushels of ashes, 300 lbs. of
bone dust, 2 bushels of salt and 1 of plaster
to the acre, and then sowing the following
combination of grass seeds, about in the proportions given, to each acre: 10 lbs. of Timothy, ½ a bushel each Ky. Blue Grass, Orchard
Grass, Perennial Rye Grass and Red-Top, and
1 quart of Sweet Scented Vernal Grass. Harrow again, and roll. This dose of fertilizer and
the quantity of seed named will cost a good
round sum, but the results will justify the
outlay.

Sweet Potatoes succeed best of course on a deep and rich sandy soil, with a warm exposure. The ground should be well ploughed, and harrowed fine. Plough in crosses four feet square, and at each angle make a hole and fill it with some rich compost and the aurface soil mixed, and draw up the earth so as to make a flat hill. In each hill plant two sets, covering about two inches deep, and as they grow keep drawing the earth around them with the hoe. In this section they are not planted until about the 10th of May.

Tobacco.—It will be seen that Mr. White continues his interesting series of articles on Tobacco Culture, and that he still strikes as the key-note of success upon the words manure and thorough preparation of the soil! Our readers may object that the immense amounts of horse manure used in New England are unattainable in more Southern latitudes. This doubtless is true, but there is no restriction on the concentration of all that may be had on smaller areas, where, with increased care and unremitting labor, the same crops may be raised as when scattered over many times the space.

Planting Trees and Shrubbery.—Do not neglect to put out before too late, fruit and ornamental trees, small fruits and shrubbery. Nothing makes a rural home more attractive; scarce anything so much and so soon increases the value of property; and

what more surely indicates a refinement of mind and manners than to see well selected and well arranged plantations of deciduous and evergreen trees and shrubs; and what adds more to the comfort and health of the dwellers in the homestead than a plentiful supply of good fruit, large and small? In our last we gave a list of fruits from which selections may be made, to satisfy all tastes and purposes. For ornamental purposes in-quirers are referred to the beautifully written papers of Mr. Brackenridge, in which he, from time to time, recommends such as are desirable and new. This mention here of our friend B's name, gives us the opportunity of saying that our readers will find few safer guides than he: thoroughly practical, almost born with the pruning knife in his hand, with an expanded botanical experience, literally extending around the globe, and with a training in ornamental gardening under the first of masters in Europe, and a companionship for years with Downing here, Mr. B. is not to be mistaken, because he wields so facile and so graceful a pen, for those writers whose works smell of the dust of the library. His hands we often find, when we stop at his nursery, are covered with the dust and dirt of the soil, but, as we laughingly tell him, that is the cleanest dirt in the world.

**Horses** now being worked to their fullest ability, need extra care and feed. Clean them daily and well, and feed and water at regular hours.

Plaster, or gypsum, should be sown on clover fields at once, if not already done two to three bushels to the acre are enough and fields of grain that are to be top-dressed with artificial manures, should have them applied as soon as possible.

Whitewashing.—All the out buildings should have a good coating of this purifying application. Nothing contributes more to the cleanliness and healthfulness of stables, pig-pens, sheep-folds and poultry-houses than this wash. It is made by slaking a peck of lime in a tub, and adding two ounces of glue thoroughly dissolved in boiling water and stirring both in as much water as will reduce them to a consistency which will admit of applying with a brush.

Here is a recipe highly recommended for a wash for inside work, but we have never used it and do not know its origin. It is probably

worth a trial:

White chalk is the best substitute for lime as a wash. A very fine and brilliant whitewash preparation of chalk is called the "Paris White." This we buy at the paint store for three cents a pound, retail. For each sixteen pounds of Paris White we procure half a pound of the white transparent glue, costing twenty-five cents, (fifty cents a pound.) The sixteen pounds of Paris White is about as much as a person will use in a day. It is

prepared as follows: The glue is covered with cold water at night, and in the morning is carefully heated, without scorching, until dissolved. The Paris White is stirred in with hot water to give it the proper milky consistency for applying to walls, and the dissolved glue in then added and thoroughly mixed. It is then applied with a brush like the common lime whitewash. Except on very dark and smoky walls, a single coat is sufficient. It is nearly equal in brilliancy to "zinc white," a far more expensive article.

## The Vinepard.

#### American Wine and its Falsification.

To the Editors of the American Farmer:

In a recent letter I expressed the opinion that many persons engaged in grape-culture would abandon the business, and that hundreds of acres of vines now growing would rapidly disappear. I referred to that class of cultivators who have undertaken it merely as a branch of their agricultural affairs, with a view to large and quick returns, and not as a special business to be pursued with the system and outlay that success demands; and especially to that portion of this class who expected to derive their profit from the sale of the fruit, and who never attempted its con-

version into wine. It is supposed that there are now two millions of acres of bearing grape vines in the United States. The last dry summer was remarkably favorable for the crop, and it was enormous. The markets were overstocked, and grapes would not bring one-fourth the price they commanded just after the war, when many vineyards were planted. In some cases the proceeds of sales did not cover the commissions and cost of transportation from distant vineyards. This result has so discouraged many that, unless wine compa-nies are organized to purchase their crops at fair prices, they will give no more attention to their vines. Our people have not yet learned the sanitary value of ripe grapes.— In the great variety and abundance of our fruits, they will perhaps be slow to discover their excellence; but any one who will eat them daily as food, will soon agree, -especially if he or she be a victim of dyspepsia,that in the overflowing basket of Pomona there is naught so wholesome. Again,-viti-culture is so little understood by many who have gone into it, that their vineyards will soon become barren and worthless. I have seen some recently in which but few fruitful branches now remain, in which the vines were overladen in 1872, and no canes grown for a crop in 1873. Vineyards will not tolerate the neglect with which so many treat their orchards, but exact the same amount of labor annually, whatever may be the market value of their products.

But the grape growers themselves are per-haps measurably responsible for the low price of their productions The public have been treated to so many sour grapes and so much bad wine, that a large number of consumers now obstinately refuse to believe that anything good can come from an American vine-vard. There has been an immense fabrication of a liquid called wine, which the people seem unwilling to drink, even at cost,-said to be about sixty cents per gallon;—and this is not strange, since the genuine article can and should be grown for less money. The great abundance of these factitious wines has injuriously affected the price of the few pure wines now made in the United States; because the American palate, long scorched by our vernacular corn-juice, does not readily discover the qualities of any other tipple. great deal of the really genuine native wine now in the market, is bad only because the growers of it lacked the skill or capital to make it better. There are many such culti-vators, and for their encouragement it is to be hoped that, here as in Europe, a class of respectable wine merchants will appear, in whose cellars the products of small vineyards may be gathered, and properly prepared for consumption. It is doubtful whether onefourth of the so-called native wine now for sale, is pure. If the extensive falsification of it that prevails and which has seriously dis-credited the trade in it, should result, as I think it will, in re-establishing the business on the more secure basis of smaller profits, larger sales and prices regulated strictly according to quality, then the present depression should not be regretted. Having to compete with many foreign wines of great merit,-some of them very cheap,-we must keep our products pure if we wish them to become popular. The public, we may hope, will learn surely if slowly, to discriminate between the true wines and the false, and the former will then always bring compensating prices. By degrees too, reputations will be firmly established, and the name upon a bottle will be a sufficient guarantee of its contents. Pure and perfect wine will be grown in our country as cheaply as any decent imitation of it can be made, and it is probable that before the close of the present century we shall have as many acres in vines as are to be counted in Europe.

Some of our prolific varieties of grapes, with good management, may be relied upon for a crop of one thousand gallons per acre: and this natural wine a few years ago sold for \$2 per gallon. If the producers had been satisfied with this extraordinary profit, the demand would have kept pace with the supply for some time, notwithstanding the prevalence of the grape mania. But many vineyard proprietors saw a fortune within their grasp, and they went for it; and in many cases obtained it by liberally watering their stocks.—The dividends of the Credit Mobilier are paltry and contemptible when compared with those of some of our vine growers a short time ago.

The process of wine making, invented by Doctors Gall and Petiot,-first promulgated in this country through the Patent Office Report of 1860,—by which crops are doubled and trebled in quantity, by the addition of water and sugar, is now generally practised. By the hocus-poeus of a saccharomster, acidometer, vaporimeter, etc., our wine growers have gone on to increase the products of their vineyards most wonderfully, until we have at length made a crop that, for quantity and quality, may well cause both producers and consumers to stand aghast. In reading of the modus-operandi of modern wine making we are tempted to inquire, if this is thus, why plant the vine? Really the whole operation as described by the learned Doctors, would be laughable, if it did not so seriously affect a new and important industry, which we should strive to establish on a safe foundation. Artificial wines have long been extensively manufactured in this country, and we should not so much object to the business, if they were sold for what they really are. The trade in them will perhaps continue, until our vinevardists produce a good pure wine so cheap, that no mixers can compete with them. In the culture of the grape we are rapidly and wisely forgetting the first lessons taught us by Europeans, as unsuited to our climate and native vines. We should now abandon the modes of wine making recommended by Gall and others; or if we do Gallize, we should sell the article for watered wine, as the French do their Piquette.

As it is insisted by many that these compounds possess all the valuable qualities of the natural wine,—and some mixers contend that they are even better,—it is due to those growers who sell only the pure fermented juice of the grape, that the bibulous public should be enlightened, and, if possible, its taste improved. To that end and considering the importance of the subject, I do not hesitate to ask you for space in which to present the views of Mr. Flagg, an intelligent winegrower of long experience. They are to be found in his instructive and interesting book on "European Vineyerds," and I will give

them as concisely as possible.

If, he remarks, the disciples of Gall are right, who say their imitations effected by fermenting quantities of sugared water on a few grape-skins or mixed with a certain portion of true grape-juice, are really wines, then our bar-keepers who bring together in a tumbler, spirits, sigar, water, and an aromatic, without going through any of the operations of viticulture, are likewise wine makers; and we, God bless us! are a nation of wine drinkers. As these modern theories, and recipes for falsification are advocated in the book of Mr. Hussman, of Missouri, who, as disciples are apt to do, goes farther than his master, the time has come for accepting or refuting them.

Gall finds the useful element of wine to be diluted alcohol, and its attractive elements to be bouquet and flavoring matters derivable from grape acids, and he makes little account of anything else. In fully ripened grapes he finds about 30 per cent. of sugar, which is just enough to give the right proportion of alcohol; and about 6½ thousandths of acids, which is just enough to give the right proportion of flavor; and just enough bouquet matter to give the right proportion of aroma. In unripe grapes he finds too much acid, too little sugar, and either too little bouquet matter or

To make a good middling wine equal in all things except bouquet to any obtainable from fully ripe grapes, he dilutes the must with water till the acid is reduced to the true proportion of 64 thousandths; and then adds sugar until the whole quantity of sugar is increased to the true proportion of 30 per cent. Bouquet he does not attempt to supply. ing the quantity of acids found in the must his base, and having by tests ascertained what that quantity is, he is no more at a loss for his other ingredients than Dr. Sangrado was, who cured everything with warm water and the lancet. He brings both pump and sugarhogshead into requisition, and makes a thousand pounds of wine for every 64 pounds of acids; which is often twice as much as his grapes could have made in the natural way; thus producing more wine in a bad year than in a good one. Such a vine-dresser needs not the smiles of the god Bacchus, but should rather pray to him for clouds and rain: and could he find a grape that would never ripen at all, his fortune would be assured.

In the larger parts of the American vine districts, grapes usually ripen too well to furnish the excuse that Gall and his friends in Germany enjoy, viz.—excess of acids. So his disciple here, Mr. Hussman, finds another in the excess of bouquet matter, with which our grapes are afflicted. Making bouquet matter his base, and paying little attention to acids, he estimates the quantity of dilution it will bear, and pours in common water and cane sugar till he runs his product up to a point far beyond his teacher's. He too, insists that his wine is as good as the original, and even better. He glories in the discovery and its results; and exclaims,—"truly the time is not far distant when every American citizen can indulge in a dally glass of pure light wine."

Now let us see how large that daily glass of the American citizen must be to hold all that is about to be poured into it. When Mr. Hussman wrote his book, there had been planted two millions of acres of vineyard in the United States. These should, according to his lowest estimate, yield 2,000,000,000 gallons of natural wine; from which, by Gallizing, we shall obtain 5,000,000,000 gallons. Excluding children too young to drink, there should be in the whole country some 25,000,000 ablebodied drinkers, the share of each of whom in the yearly vintage would be 200 gallons, something over three bottles a day. Then there are the tee-totalers, who might object to drink their share; but I suppose we might funnel

But both Gall and Hussman must give way

to an enterprising Frenchman, M. Petiot, who has been working the same rich vein. Gall makes as much wine as his acids will flavor. Husanan makes as much as his bouquet matter will odorize. Petiot, taking a collective view of things, assumes the must to contain 99 per cent. of water and sugar, and only one per cent. of all substances, such as tartar, tannin, essential oils and coloring matter. He says that it is this one hundredth part which constitutes the wine, and distinguishes it from other liquids. Having brought his wine matter into this small compass of one per cent., he strikes out boldly, and does not stop till he has attained a fice-fold result; having made, as he assures us, out of fifteen hundred gallons of natural wine, seven thousand gallons of the chemical article; all of it, he asserts, better than the original and with a better bouquet.

Now if we graft Petiot on Hussman, our crop will be something like 12,000,000,000 gallons, obliging each of us to swallow eight bot-

tles a day.

Gall has offered a premium to any chemist who will detect in his brewage any thing hurtful to health, and insists that no substance conducive to health is removed from the wine by adding water and sugar. This is precisely the claim of those who feed cows on distillery slops concerning the milk they sell. And chemists find nothing in it but the water, sugar, butter, caseine and salts proper to the milk of all cows, only they are combined in different proportions; and yet the children die of it, many and fast. There is a limit to the authority of chemistry in regards to aliments. Who would like, for instance, to eat a chemically-compounded egg, having every quality of the hea-laid article which analysis could detect?

Mr. Flagg states the result of some experiments carefully made by Mr. Delarue, to show that these simulated wines are not chemically identical with the real thing; and are not so healthful, because their ingredients,—not being bound by the hand of Nature, but merely stirred in with a stick,—separate too readily when exposed to the normal temperature of the stomach. A drink composed for the use of man, and destined to decompose within his body, should not only contain good ingredients, but they shall hold together just long enough, and separate at just the right moment.

Extracts and mixtures naturally provoke suspicion. The sugar which ferments in juice of the ripe grape was always there. It and the watery particles of that juice can hardly be called sugar and water. They are one,—born of one root, and kindred of one sap. Sap is thicker than water. These considerations go to all those substances found in Gall's and Petiot's wines; for judging by Mr. Delarue's tests, they are as easily shaken from the rest of the fluid they are designed to disguise, as the lion's skin was from the shoulders of the ass; and for the same reason,—they did not grow there. Of all the imitations, the Gallized wines are probably the least injurious to health. Those which are carefully made, may indeed

contain all the ingredients of pure wine in proper proportion, but they will not combine and cohere as in the natural grape-juice.

I intended to say something about planting vineyards and making wine, but must make it the subject of another letter. Though if these factitious wines, (foreign as well as native) are to hold their present place in our markets, it is hardly necessary to talk or write about the culture of the vine. To make wine from aught but the fruit of that noble plant, is to play Hamlet without the Prince. We are now annually consuming and being consumed by eighty millions of gallons of whisky. If we are ever to become a sober, cheerful and healthy people, we must make pure wine cheaper than any other liquor: and this will soon be accomplished.

The temperance party, to be successful, should occupy the high vantage-ground of our vineyards, and from thence open their batteries upon all adulterated drinks. That is the strategic point, in my humble opinion, from which they can best assail the forces of King Alcohol. It has been recently and well said by Archbishop Bayley of your city, that—"a real inspection of liquors would destroy two-thirds of our intemperance." LABORER.

Anne Arundel Co., Md., March, 1873.

## Correspondence.

Meadow Oat Grass-Randall Grass-Peas and Buckwheat.

Messrs. Editors of the American Farmer: For the information of my old friend F. G. R. of the March No. of your Farmer, about the grass of many names, I will state that many years ago, in an advertisement of grass seeds in the Lynchburg market, my attention was attracted to the beautiful name of "Mountain Evergreen." I procured a few bushels and sowed it on a part of an 100 acre field, in which I also sowed clover and five other kinds of grass seed, each lot to itself. The Mountain Evergreen came up more thinly than either of the other kinds; it seemed to be a strong, luxuriant, coarse grass, and the next year, after turning on my stock, I found this grass often in full seed, whilst all of the others were quite closely grazed, clearly show-ing my stock esteemed it at least the seventh grass of the field. Although I have never tried it again, I often see it scatteringly on my fields, and always more slighted by my stock than the other grasses. It is a heavy seed bearer, and seems to shatter easily. often heard our old friend (now dead) Dr. John Gant, a successful farmer, speak very highly of it, and also Mr. Z. R. Lewis, one of our very best grass growers, who I think now esteems it as one of the very best of all the grasses. From their high opinion of it I am almost persuaded that my hasty opinion was incorrect, especially in these times, when any grass is far better than no grass at all-and

this does grow finely where most of the other grasses would afford a scanty bite for our stock. I think I saw much of the seed of this grass in the Lynchburg market last spring. I have no doubt all the information desired can be obtained from Col. Henry Gant, Scottsville, and of Mr. Z. R. Lewis, of Howardsville, both of Albemarle Co., Va.; and any information obtained from either of these gentlemen can be as much confided in as from any two gentlemen of this or any other

county.

Many years ago I obtained from Montgomery Co., Va., a grass seed, then known there as the Randall grass, said to have been brought there by a squatter from Kentucky, who sowed it on the tobacco plant beds of their mountains, to decoy the cattle in the woods, so he might select such as would best suit his fancy and taste at the least possible cost. This I esteem the best grazing grass I have been able to obtain; the finest lot of grass I ever saw was of this grass, upon the yard and lawn of Mr. David Fultz, near Staunton, Va. It is not a good grass for hay; the stems are short, the blades long and glossy, having very much the appearance of having been varnished. It is a heavy seed bearer and easily saved. I have often procured this seed of Messrs. Wm. T. Anderson & Bro., of Lynchburg, Va.; it is a low priced seed; has much the appearance of small cheat or chess

I was pleased to see my old friend F. G. R. give the politicians such a rap in his closing remarks; if he had tacked on the lawyers, too, I think it would have been more complete. Shortness of breath and trembling hands admonish me to stop. I should think this Mountain Evergreen or Highland Meadow Oat would be quite a good article in the South, as their stock seem to ent freely what our stock will scarcely eat at all. For mstance, I am told in Mississippi the Gama grass is a great grass, of which their stock ent freely, and can be cut as many as seven times a year. I have had it for many years, and my stock are very hard pressed to eat it at all. I think it quite a good article to stop washes on my branches and creeks, but never for my stock. I apprehend that a grass which would be most desirable for the South would not be necessarily so with us of Virginia or north of us, and I should think this might be so with England and America, for I well remember the English accounts of Chicory as a great thing there. Mr. Sinclair speaks of it as affording some seven cuttings per year, yielding an immense amount—the seed of which he sent to Gen. Washington, who sent it to Mr. Jefferson, and he gave some of it to Gen. John H. Cock, of Fluvana Co., Va., who brought a gallon of it to me. I sowed it; it came up well; on fine land produced but a slender crop, of which no stock of mine would eat when it was possible to get anything else. When it first comes up in early spring, sheep and cows eat it, but never afterwards. I still have it on the same spot, in

memory of my old friend Gen. Cock and his

My feeble condition disables me for looking up my notes of other days, to which I wish to refer for, perhaps, my last article on green fallows. I shall try to have it in time for your May No. Those who had the good fortune to know Mr. Richard Sampson, of Goochland, Va., either personally or from his deservedly great reputation, could wish for no better authority for the Pea fallow, for none could have been had. Mr. Sampson preferred the Pea, and so do I in a dry season. Of a moist season, on poor land, I much prefer the Buckwheat. The Buckwheat depends more on the season than any other crop I know of. If sowed early, two crops can be turned in one season; the first seeding for the last. A bushel of Buckwheat or a bushel and a half of Peas per acre, with a bushel of plaster, is what I aim to sow. Had I laid out only one-fourth of the money I have fooled away in spurious manures, in Peas, Buckwheat, plaster and lime, my farm would have been vastly more improved, and my purse been the better able promptly to respond to the too oft disappointed calls of these very stringent times. Yours truly, GEO. C. GILMER.

GEO. C. GILME Charlottesville, Va., March 6, 1873.

#### Mr. Newton on The Situation.

To the Editors of the American Farmer:

I am getting too old for the active labors of the farm, and have turned over the management pretty much to my son Edward. He is an intelligent, active young farmer, with great zeal in his business. \* \* My health has greatly improved, yet I fear it may not be sufficiently re-established to justify my writing regularly for the press. I noticed the remarks of my old friend McCue in the last numbers of the American Farmer and Southern Planter. and indeed, I have received so many cordial good wishes and kind greetings from friends everywhere, including some of the highest financial authorities in the large cities, that I should be destitute of sensibility if I were not grateful for their kindness. It would afford me great pleasure to do anything in my power to promote the interests of either of these papers, and if my strength should return with the singing of the birds in the spring, as I hope it will, I shall be again able to write for them.

I have not yet been able to find any one able to answer-the question "What shall we do." So far from it, in Virginia, and indeed, in all the grain-growing States, the question seems more and more difficult. We practice the greatest economy, labor diligently, endeavor to diversify productions as much as possible, yet with bad seasons, inefficient labor, and above all no currency, our labors end like those Sysiphus, when "Up the high hill he heaved the huge round stone." But we do not complain, submit to the will of Provi-

dence, and hope for a better day coming, if not to us to our children's children. I dare say, you have had quite enough of my finan-cial views, but I will repeat what every day's experience confirms, that we shall have no improvement, until some such changes as I have recommended in our commercial policy shall be adopted. Public men seem to be fully aware of the difficulties of the situation, but they seem afraid to grapple with them, and they will make no sufficient effort for relief, until the necessities of the country call so loudly for relief, that the call cannot be disregarded. If the whole country without regard to party were to take up this subject, relief might be easily attained. Mr. Sherman made a very able and considerate speech, as chairman of the Emance Committee in the Senate. The spirit was admirable, but I fear the recommendations will never reach the relief required. But I do not mean to worry you with matters of this sort, and can only hope that the time may soon arrive, when sound views may be adopted on this important subject, greatly to the relief of the whole country. Yours truly, WILLOUGH Linden, Va., March 11, 1873. WILLOUGHBY NEWTON.

### A New Departure—Turnip Culture and Sheep Raising in Virginia.

To the Editors of the American Farmer :

I have read the Farmer attentively since its re-appearance, closely noting the pros and cons of the various matters therein written about and discussed, and now I propose to write you upon matters and things generally, and what I know about some of them. Now, I have thus far in my Virginia farming career (of about four and a half years) been an or-thodox sectional farmer, that is, in planting and cultivating those things which I found the "oldest inhabitants" planting and culti-vating. I am now going to take a "new de-parture" What will the readers of the Farmer say when I tell them that this very year I shall sow a field with Swedish (ruta baga) turnips, and feed them off with sheep? I know it is not the established way of farming in this country, and I shall be told that my field will produce so many more times the value of my turnips if planted in corn—that our forefathers did not feed turnips off with sheep, &c., &c., but I shall begin it at any rate, and I publish my intention to attract the notice of my brother farmers, as I will give you the results of my experience, and wish to awaken their interest to the subject, considering it of vital importance in increasing the fertility and production of our land.
On the 10th of July last I sowed three or

On the loth of July last I sowed three or four acres of Swedes, and two or three days after a good rain fell, which secured their germinating, and notwithstanding the severe drouth of last year, I raised as fine a crop as I saw generally last fall in England, whither I took a trip of ten or a dozen weeks, and today, with the snow on the ground, I have an

hundred ewes, about half of them with their lambs by their sides, feeding upon them; and without them I should fear my lambs would have a very poor chance for a sufficiency of milk. I do not mean that my sheep are feeding upon the turnips where they grew in the field, for I harvested them early in November, stored them away, and feed them from the store; nor do I wish any one to understand that I advocate feeding off the turnips in the field during the winters we have here, for that would be, if not impossible, certainly very impracticable. But I mean that we shall feed them off in the field during the months of September and October, before our freezes begin, for the purpose of making fatter and better mutton than we now make, and for the purpose of enriching our land.

Stephens, in his excellent work, "The Farmer's Guide," (which I here recommend as the most complete and comprehensive work on farming extant,) says, vol. 1, page 189: "It has been found by experience that more than half of a fair crop of turnips consumed on the ground by sheep, leaves more manure than is proper for the ground to receive at one time for the succeeding grain crop; and the too great effect is evinced by the crop being laid to the ground for want of strength in the straw. \* \* \* The usual proportion pulled of a good crop is one-half, but should the soil be in low condition, a third only is removed, and if in fine condition, twothirds or even three-fourths may be pulled; but the quantities thus pulled depend upon the bulk of the crop." If the crop is very large and the ground in fine condition, twothirds may be pulled; but it is rarely the case that the soil is so rich, and the crop so large, as to make a half too large a proportion to be left on the ground." Now I fear few of us will find our land in so good a condition as to allow us to take any portion of our first crop we design having eaten off, but if Mr. Stephens' statement is true,-and it comes trom about as high agricultural authority as is in England or Scotland,-it will not be long before we can begin to leave only a portion of the crop for the sheep. I do not suppose that any intelligent person will understand from what I have said myself or copied from Mr. Stephens, that any old worn-out field, by being sown to turnips, which are eaten off by sheep, can be raised by magic in that way to any such state of fertility as is mentioned. We all know that when we produce a fair crop from any land but good land we must manure for it, and if we wish to get another crop the succeeding year as good as the first, we must manure again. But if I, by manuring well the first year, can fatten a flock of wethers, getting perhaps more than the value of my crop upon which they were fattened, in the advance over their cost, by consuming half of that crop or the whole of it, and leave my land as rich as it was, and certainly in better heart than it was before, I think I shall have driven a peg by which I may continue to sight.

That the land should be as rich, to say nothing of its being richer, we must attribute to the nature of the turnip to draw from the subsoil, and to the better assimilation of the fieces of sheep to the succeeding crops than the turnips would be were they left to decay upon the ground. Now, a word to my friends, the corn men: I am as great an advocate of corn as they, and perhaps a greater of sowed corn fodder to a certain extent; but experience has demonstrated the fact to me, that in order to raise early lambs my ewes must have succulent food, and that I cannot depend upon grass to furnish it, because the ground is frequently covered with snow to such a depth as to prevent my sheep getting to it, were the grass there to get, at the time they most need it. We all in this country have a feeling recollection of the winter of 1871-2; one of my nearest neighbors lost nearly all of one hundred and fitty lambs, though he fed his sheep well on corn, while I, being so fortunate, as it afterwards turned out, as to be unable to sell a crop of two and a half acres of magnificent cabbages I had grown, brought my flock through, by means of them, without any loss save from dogs and other causes incidental to so large a flock (five hundred ewes and wethers) and raised a large number of lambs. To be sure I fed them corn and hay, but my ewes could not have had a sufficiency of milk without the cabbages.

But enough of Swedes for the present. As I said, I succeeded well with them last year, and am making preparations to sow as much of some land I now have in wheat, without any grass, as I can—t venty acres of it if I can prepare it in time—and will report progress to you. Have tried nearly all the various commercial fertilizers, but have found nothing so good as pure ground bones—bone

dust.

I see Mr. Gilmer, of Charlottesville, is giving his experience with buckwheat and peas as green manures. What a boon it would be to the millions of acres of land in this country that has been robbed of its humus, if he succeeds in convincing its owners of the neces sity of turning something green under it! While they were doing it, they would find an incidental coming to their aid little if any less powerful an agent in renovating their lands, than the crop they turned under-I mean the summer fallowing their lands would get. When I began farming here, I was told that about twelve acres of a fifty-acre field I was about to cultivate was too poor to bring anything, and it looked so, but was originally good land. Wishing to cultivate the field uniformly, I planted this portion, as the batance of the field, in corn, but cut the poor little stalks (about the size of my finger) in August for the hogs. That was in 1869. In the spring of 1870 sowed the field in oats, leaving this piece out. When I finished sow-ing my oats I fallowed this piece as deeply as I could with two-horse ploughs, and about the 25th of May, 1870, sowed a bushel of buck-wheat per acre. I had forgotten to state that

on a portion of it I put about 75 pounds of superphosphate per acre, with the corn, in 1869. On this portion the buckwheat came up tolerably well, but on the balance of the piece it did not grow to a foot in height, and did not have more than half a dozen stalks to the square yard. At some distance from it you could not perceive anything upon that portion I had put nothing upon. But the and had been well ploughed, and the sun shone hard upon it. On the 20th of July I began fallowing for wheat, commencing with this piece. From that day until the 27th of September I do not think we had a rain to wet the soil one inch, but the dry weather pulverized it, and I had no difficulty in harrowing the land perfectly smooth. 21st of September I began, with this piece, drilling my wheat with 250 pounds bone dust per acre and one gallon timothy seed. I made about sixteen bushels wheat per acre the field of 50 acres over, this piece being a little better, if anything, than any other portion as large as it was in the field, and the grass on it is grand. Now, what did it? I go in for buckwheat and peas and any other vegetable matter we can turn under, but I don't forget that "incidental." Yours,

J. D. BETHUNE. Warrenton, Va., Feb. 27, 1873.

#### Cultivation of the Irish Potato-II.

To the Editors American Farmer:

There is much difference of opinion as to the size of the potato to be used for seed, some contending that the small potato is best, others holding to the opinion that the large potato alone should be planted, as the fruit in a measure depends upon the quality and size of the seed from which it comes. This in the majority of cases is true. If we plant large majority of cases is true. If we reap large grains of corn, we are likely to reap large and culture be good. If grains, if the land and culture be good. If we plant the seed of a large pumpkin, the fruit will be more likely to be better developed than if the seed had been procured from small fruit. But this does not hold good with the potato. The potato, when produced from seed, is very small the first year; the second year the tuber increases a little in size, a little more the third year, and so on until it reaches maturity; it is then alone that its maximum size is reached. It is a fixed fact that all things, when they reach the age of maturity, tend to degenerate and decay. The mighty tend to degenerate and decay. The mighty oak consumes one hundred years in its growth, enjoys one hundred more in perfection, and a third hundred is consumed while undergoing decay. So with the potato; by careful culture it is brought to perfection and maturity, it flourishes and becomes popular with its ad it nourishes and becomes popular with its admirers for a few years, then degenerates and is banished, to give place to some new and more perfect variety. From this we would suppose that middling size potatoes would be best to plant, because they have not reached perfection, and consequently will rather tend

to improve by careful culture than to degenerate, as in the case of mature tubers used for seed. So far as my individual experience goes, I cannot see any difference between a crop produced from large and one from small potatoes. The quality of the soil and the season seem to be the ruling elements, but care in culture and selection of sound seed are in no degree of less importance, though the former greatly stimulates the latter influences. Last year I planted forty bushels of Jersey Peach Blow (large) potatoes; it took ten bushels of small potato cullings from my previous year's crop to complete my planting. These potatoes were planted the first week in June and on the right moon, according to the Dutchman. At the start, the potato plants from the large tubers made the most rapid growth, but by the first of September there was no perceptible difference; the vines began to fail alike under September's suns; they were too far gone to be stimulated by October rains; at digging time a poor crop was harvested, there being no difference in yield between the large potatoes planted and the small ones—all seemed to fail alike.

About the 20th of June I found that I had some small potatoes (cullings) on hand, which I had been unable to dispose of. I concluded to break up some filthy sod land, which I found growing locust sprouts at a fearful rate, and plant these remnant potatoes. I did so; gave them the same culture as the first planting; this time I got on the wrong moon, according to the Dutchman. The soil was so dry that not half the potatoes I planted came up. Those that did come looked poorly, owing to the dryness of the weather, but I resolved to keep the land well stirred, pota-toes or not. About the first of October the rains came; the potato vines, then feeble, began to grow; the tubers swelled to an immense size; they were dug in November.
This late planting happened to strike the right season; it doubled the first planting in yield; the tubers were of fine size, many of them weighing 24 ozs. In both these cases the soil and the culture were about the same—the dif-ference of yield was produced solely by the season hitting one crop at the right time and being too late for the other.

When our weather prognosticators shall succeed in foreshadowing the seasons, we may then be able to double our crops often by knowing when to plant to hit the right seasons. Even then neat calculations will be required to have the plant in the right stage of its growth to be benefited by the rainfalls.

Early potatoes should be planted as early in the spring as the soil will admit of being worked. I have often seen potatoes planted in March and known the ground to freeze over them without injury. But I think it is better to defer planting until April, if the ground cannot be thoroughly prepared in March. The late varieties should never be planted before the 10th of June. The land in all cases should be deeply ploughed for the potato, and kept well pulverized during its entire entire.

Never allow the vines to crust around the vines; keep the ground loose and mellow, so that it will drink in the night dews. Weeds are particularly obnoxious to the potatothey should be pulled up even after the vines get too large to admit the passage of the plough or cultivator between the rows. If the ground has been well worked, they can easily be removed by hand without injuring the vines. My system of culture is as follows, as a rule: Plant in hills or rather in the cross, as is common to plant corn; distance between hills three feet each way; cover with care, hoe to the depth of three inches, drop two half potatoes in each hill. When you find the potatoes sprouting, pass over them a light harrow to loosen up the soil and kill young weeds, which are apt to sprout in advance of the potato. Thus the potato is worked before it sees sunlight, which is better than to work just after it comes up, as you endanger its being frozen and smothered in its young state. Many plants are killed by having clods put upon their heads when too young to resist their weight. When the potato becomes four inches high, pass the cultivator through the rows; let a careful hand follow it with a hoe, to chop out weeds and draw earth to the roots of any of the plants that may have been exposed by the cultivator teeth coming too near them. When eight inches high, furrow with a small plough, and let a hand follow to clear up such vines as may be covered up. When you find the tu-bers beginning to form and the vines showing evidence of blooming, give another furrowing across those first run; a square hill thus formed around the potato. Then let a careful set of hands follow and dress off their corners; draw the earth to the potato, making a flat hill, in which the potato occupies the centre. There is no other work necessary to make a crop of potatoes, except to run over the patch about every ten days, and remove by hand any grass or weeds that may make their appearance. This weeding should be kept up until the potatoes have fully ma-tured. Of course the above manner of culture will be varied a little according to the season, the character of the soil, &c. No man can follow rules exactly in working crops; we must work our crops according to the season, character of the soil, amount of moisture in the soil at the time, &c. A man must think of the probabilities of the future, take into consideration his own past experience, not other people's. If a man has not brain enough to discriminate whether it is best to plough land deep or shallow when he knows the plant to be grown lives upon the surface or deep in the soil, advice from others can do him but little good. If I were to tell a man to-day that his soil was mellow, that I thought a harrow would work it sufficiently to-morrow, if a heavy rainfall should come to-night and pack that soil, start grass and so forth—if in the morning I should find him taking my advice instead of exercising his own judgment, by using the plough instead of the harrow, I should pronounce him totally

unfit to be in possession of a farm.

Potatoes should be removed from the soil as soon as they cease to grow and their skin becomes sufficiently hardened to prevent peeling in handling. Early potatoes are often very much damaged by being left in the soil until they take a second growth. I consider the potato hoe the best instrument ln use for removing the potato from the soil. When the plough is used, the raking process which follows is about as tedious as to remove them solely by the potato hoe.

EDW. B. EMORY. Queen Anne's Co., Md., March 7, 1873.

## Practical Observations.

To the Editors of the American Farmer:

The late Hon. Chas. B. Calvert gave me a fact which occurred in his experience that cost me more than one hundred dollars, but may be more valuable in its moral influence to many others than seven times that amount. After dining with him, at his hospitable and well-appointed residence at Bladensburg, some twenty years since, we walked over his farm, and it was suggested that one of the fields be manured annually with a clay compost, applied as a "top-dressing" to the hills of corn exclusively, in view of the fact that the soil was deficient in consistence on that part of his estate, leaving nearly half of its weight of coarse sediment and sand on elutriation, viz: when stirred in water, however rapidly it was decanted. Otherwise I advised that pure clay be applied to each hill of corn, (as a mulch,) assuring him that on that particular locality it would repay the expense in the crop and gradually increase the consistence of the soil. He pointed me to an artificial mound in the rear of his house, and asked me how much I supposed that cost him-assuring me that the cost of hauling such material was greater than usually it was supposed to be-[I think several thousand dollars expended on an ornament in his garden.] While walking in the garden he called my attention to the fact (above referred to) in his own experience in relation to mulching sand or loose soil: "Some large Spanish (or other) chesnuts of unusual size were planted with great care, but others were accidentally scattered over the garden; some fell into cavities containing sand, where flower-pots were 'bedded,' and these sprouted and made fine plants, whereas those which were planted secundum artem did not sprout, but rotted in the ground—not one ever ap-peared above its surface." Seizing the idea, I purchased of Grant Thorburn, of N. York, by express, two bushels of the seed of the Maclura (or Osage Orange) and planted them in sand, in holes, several seed in each hole -but not one plant was obtained except about a dozen which were cultivated, as usual in the garden, and now protect one side of our family burial lot as a monument to culture. Moreover, remembering the parable

of "the seed by the wayside, which fell on good ground and produced one hundred fold," I tried this also, as the soil directly under the fence is most certainly the richest, and there I wanted the hedge. Scalping off the sod, holes were made a tew inches apart, and filled with sand after introducing several seedthis under several hundred panels of fencebut not one single plant resulted. Again, and at the same time, in the same spring, a similar bed was prepared in the field from some 12 acres of which my father had sold (\$1200) twelve hundred dollars worth of wheat, in one of those years which occur as above .-Nevertheless this plantation utterly failed of producing a single thorn quick, although a large part of the seed were sprouted by soaking in water, and some in heaps of wet sand; subsequently they were put into the holes as above, and covered with sand. Consequently we argue that a special Providence must sometimes attend seed when it succeeds, even on good ground "by the wayside,"-and no practical man should depend on such contingencies, but spend his time and labor, and especially his money, on good seed-in good ground-insured by a cultivation which is the special result of Providential covenants and

experience.

Manuring broadcast is "played out,"whereas manuring each crop, and that in the hill, is the most modern improvement in agriculture. While living at Annapolis and on a certain "fourth of July excursion"—many years since-I walked over "Needwood farm with Hon. Jas. T. Earle, where, as lads, we remembered gunning over old corn ridges some twenty years in fallow with Cape clover, and very little of that-also wheat fields, where a rabbit might be seen at harvest and "run through it without shaking the plants," as was then remarked—but under his farming since, we made some practical observations, which I have since verified in my own experience. We walked through wheat which promised twenty-five or thirty bushels, and saw corn nearly double this crop on same fields above described, the result (he assured me) of drilling the manure with the seed. But what surprised me most was that he was baling timothy hay for the Baltimore market, and the wheat drills were beautifully set in this grass, drilled with the seed wheat, whereas on our land we find it heads with the grain if so seeded-but the third crop of corn on such land on the same peninsula, we find excels the first crop, even in a peach orchard, provided both the trees and the corn are liberally manured (specially) in the hill Moreover we never fail in our peach crop, having annually thus manured each tree as close to the stem as it is possible to heap the manure. Each tree ultimately costs several dollars, but is quite in contrast with the enormous waste which the greed of multitudes prefers, apparently. This idea was again reduplicated in my experience most unexpectedly. Broadcasting a comparatively small area to improve a field while soiling, it was soon discovered

to be utterly impracticable to secure the requisite amount of manure—whereas in the drills any one can insure and force a green crop—double the surface soil and drain the land at the same time. Two volunteer apple trees which have accidentally grown in fence rows—one in the midst of a hedge—have supplied more apples for many years than a large orchard I planted and manured heavily, because planted too deep, and perhaps because raised in a nursery at the South. One of these two trees has yielded repeatedly 30 to 40 bushels of large fruit, and now supplies exclusively our stock for the winter—say 15 or 20 baskets still on hand. Where a seedling thus succeeds, its vitality has not been impaired by pruning, and originally it excelled—as the Savage—in this respect. Moreover, its special "soil plant food" gave it "the presumptive right" to the spot, subjugating inferior organisms.

DAVID STEWART, M. D. Port Penn, Delaware, Feb. 10, 1873.

### "What Shall We Do?"

### To the Editors of the American Farmer:

The above question has been several times asked through your journal, accompanied with replies varying according to the standpoint that your correspondents assume, and they, like Job's comforters, darken counsel with words. There was some good in all, but it was so hid that few would find it. To answer the question in few words, I say, serve God in all that you do, whether you be merchant, lawyer, doctor, laborer or farmer. The question will come up, how shall I serve God? Why, by doing everything faithfully, honestly and with all the ability that God has endowed you with. If an honest servant knows not his master's will, he goes to his master and asks him his will, that he may do it. Whatever God has put in our possession he requires we should improve, for if we do not, he says it shall be taken from us. As your's is an agricultural paper, I address myself principally to the farmers, though what I say is applicable to all occupations. I speak generally, and there are exceptions. Some try to do, but do not succeed, because they do not try right; they do not enquire of the Lord. The Lord says, I will be enquired of; God likes the people to come to him and en quire of him what, how, and when they shall do. Some persons buy a farm, go to work on it, plough and sow, and they get poorer every year, and why? Because they have forgotten to enquire of God, and to heed his counsel. Improve your farm; make good fences and gates; extirpate the briars and weeds; take good care of stock; give the seventh crop that grows on the farm to the farm! Often the landlord does not wish to farm, but rents it out to a tenant. The tenant says to himself, I do not know how long I shall stay here, so I will make all out of it, and he goes to work in the same way that the above farmer

did, he ploughs and sows, and he sows and he ploughs, neglecting everything else, until finally he has to leave to get something to live on; or the landlord seeing things going to ruin, drives him off. A word to those who consider or reflect properly is sufficient, but to the conceited or self-willed, there is not much use to continue argument.

TRUTH AND COMMON SENSE.

Jefferson Co., W. Va., Feb., 1873.

[We publish the above from our friend, Col. L .- it was received too late for our March No. We fully agree with him, that in all things we should commit our ways to a superintending Providence, and as we have before remarked, that whilst doing so, we must at the same time be prepared to put our own shoulders to the wheel, for God works by means, and helps those who are disposed to help themselves. Even the Heathen Philosopher, Æsop, recognized this principle in a striking manner, in his fable of the wagoner, the wheels of whose vehicle having stuck fast in the ruts of the road, he began to cry lustily for the help of Jupiter, who in his reply told him to put his own shoulder to the wheel, and then the god would come to his aid - Ed.

## Tobacco Culture in New England -No. 3.

## Messrs. Editors American Farmer :

Ploughing and good culture exert a very great influence on the anticipated crop of to-The better and more thorough the ploughing and harrowing after dropping out the manure and previous to setting the plants, the easier the after culture and the sooner and better the plants become established, as also the better the crop; for the more rapid the growth, as we plant it, the finer the quality, as a general rule. Some of our people do not plough their tobacco ground but once; such are not our most successful growers; they leave the land to grow to weeds and grass, till the latter part of May, and then spread and plough under the manure; in such a course the ploughing cannot be as well done, and the after culture is less easy, as also the growth of the crop is less, etc.; this course was more general in the earlier days of tobacco culture than now. As we gained experience we found that the more thorough the culture, and all manipulations, from the preparation of the seed bed to the receiving the money for the crop, the more our interests were promoted, pecuniarily. Experiment taught us that if we first overhauled, mixed and fined the manure, then spread it equally over the whole surface, and ploughed it down as early in spring as possible, after the ground was settled and sufficiently dry to work well; and when weeds began to start, harrowed to destroy them, etc.; and then about the time the plants got to be

near large enough for transplanting, ploughed again, we gained in several ways. At the second ploughing, we sometimes make a small application of manure, in addition, if in our judgment necessary, and we have any left, if not, some fertilizer, and then carefully plough, as previously stated, one or two inches deeper than the first ploughing; the ground is then harrowed thoroughly and it is ready to be fitted for transplanting. The next step is to mark off the rows at equal distances of 3 5-6 feet apart; this is done by a home-made marker, a piece of 2x2 inch stuff, 7 ft. 10 inches long with three teeth, or markers, set 3 ft. 10 inches apart, a handle similar to a rake handle is attached to draw it by hand, guides are set to start the first rows and lay them straight— straight rows not only look the best but are also better for cultivating-after going across once, one of the markers follows back in the last mark; a light one-horse plow now follows these marks, turning a furrow about two inches deen: into these furrows we strew, as even as possible, guano and plaster (gypsum,) mixed, 150 to 200 lbs. guano, and 200 to 250 lbs. of plaster to the acre; we then cover this fer-tilizer with a "Tobacco ridger," which slightly raises the ground along the line of the row, a roll or smoother, attached to the back end of the ridger, smooths off the top of the ridge, leaving it 8 to 12 inches broad. We next take a wheel marker; we use our old fashioned two wheels, fastening on cleats to the outer rim 24 fect apart; this is run along the centre of the top of the ridge, by means of a shaft and handle, leaving marks 21 feet apart for places to set the plants; a boy can do this part, as also some other of the work, as well as a man. If the plants are set immediately there is no necessity of anything more to mark the hills, but if not to be set for a day or two it is better to spot, with the back of a hoe, the places for the plants, as then they will remain for some time distinct. We are careful not to have any straw, stalks, roots or other obstructions in the hills where the plants are to be set, as frequently they will spoil a plant by throwing it out, etc., in cultivating; as far as possible we like to have every hill fitted alike, the soil mellow, etc., that the plants, set at the same time, may take root and grow alike, as then the crop is even, and looks much better. -we take much pride in looks as well as good crops,-is every way better, and goes through the season in all respects better.

During all the intervening time, from sowing the seed, the plant-hed receives all necessary attention in encouraging the growth of the plants and keeping them clear of weeds. The plants will necessarily stand thick in the bed, but the stronger will keep at the top; these are the first ones drawn to transplant, leaving the others room to grow for later setting. We like to have good strong plants, with plenty of roots, for setting, as they start off better and hold on through the season. As early in June as we can prepare for it, and the plants are sufficiently grown, we begin to transplant; about which we propose to tell

you next month. It is seldom that insects trouble our plant-beds, so that we escape that annoyance; a little plaster, or powdered hen manure, scattered over the plant-bed, is the chief means of keeping insects off.

The editor's remarks, as also his quotations introduced in the last number of the American Farmer, are appropriate; but the extract from the N. Y. Sun is somewhat rose-tinted. and needs some qualification, as extremes are there reported. The writer of this has been acquainted in all this section, and with tobacco culture here, since 1833, and he can recall the times when our commercial crops were chiefly grain, seed growing, etc. He also recollects that farmers and their help in those days began their day by rising long before sunrise, doing their milking and chores, ate their breakfast, and off to the field soon after the sunlight gilded the western bills, and during the most busy season and having, working as long as they could see, getting their supper not till 8 o'clock, and sometimes later, in the evening; pinching and screwing every way, almost, to get money to pay taxes and help; almost everything was alike shabby; help was hired for six to ten dollars per month, and equally as good, if not more reliable, than that which is now paid twenty-five to thirty-two dollars, and only work ten hours per day in the field. Times are greatly altered in all the Connecticut Valley with the farmer since the improvement in tobacco culture, etc., has been inaugurated; many luxuries, unthought of by former generations, have crept in, whether for the better or worse is W. H. WHITE. not for me to say.

### Virginia Farming-Corn Culture.

To the Editors of the American Farmer :

Never having written a line in my life for publication, you have imposed a most unpleasant task on me. I say imposed for the reason, that after calling on me to give my "mode of farming," &c., &c., you add, "and he that knoweth to do good and doeth it not, to him it is sin." Holding the doctrine that I do, that every man should feel in duty bound to do all the good he can for his fellow-man, provided that he can do it with little or no injury to himself, I cannot refuse your request; therefore will commence by giving the size of my farm; as in reading the experience of others, I always desire to know the size of farm, which will enable me to judge if I can apply their modes of farming to my own. I have about 550 acres arable land-it is unequally divided, as a public road passes through it, and prevents a more equalization of the fields: there are seven fields, averaging about 53 acres each-four of 30 acres each-meadow 40 acres, and several small lots.

Since the war I have obtained labor by giving a part of the crops, believing that persons will do more work, and perform it more cheerfully when they have an interest and their reward depends upon what they make. I furnish the horses, all farming implements, clover seed, and plaster. They feed the horses and board themselves, and give me one-half of all crops raised on the farm. I reserve the privilege of grazing and rotation of crops. I have two joint tenants, each of whom has two boys to aid him—they are required to cultivate about sixty acres in corn and fallow the same quan-

tity for wheat.

As the Corn crop is generally the most to be relied on for profit, I will state my mode of cultivating it. Last year (1872) I had a field of 45 acres, and a lot of 15 acres in corn -owing to the bad winter, but little ploughing was done till March. The field had been mowed and grazed for ten years, and as the grass roots were near the surface and the land light, it was not well ploughed, as the sod was not stiff and would slide along before the plow. I suppose the average depth of ploughing was not over five inches. The land being light I thought it best not to harrow it, as it would be more apt to bake. Commenced planting 17th April—the rows laid off four feet apart and corn dropped from 21 to 3 feet apart, six or eight grains in the hill. A hand follows the dropper, scattering the following fertilizer on and around the corn: equal quantities of plaster, ashes and rich black mould; the latter obtained from a mountain valley. A single handfull of the fertilizer is sufficient for 3 or 4 hills-and at this rate it requires about 3 bushels to the acre. I finished planting the crop 29th April, and commenced working it 14th May. I usually commence working so soon as the plant is large enough not to be injured by birds or worms. The field stood tolerably well. The lot was cut off three times by the cut-worm, and was planted the last time in June. The first working was with the cultivator, followed by the hoes, re-planting and chopping the grass from around the hill. The second working (which I consider the most important) was with the cultivator, followed by the hoes, thinning to two stalks to the hill, and chopping the grass between the hills and loosening the earth close to the young plants, and drawing fresh earth on each side of the corn, leaving a flat hill. This is the most tedious process in the cultivation of the crop, but one I think, if well done, always pays me best. The third time I go over it with the single shovel, ploughing as deep as I can, thoroughly mixing the rotted sod with the soil. Lastly, I lay by with the cultivator, followed by the hoe, chopping any weeds or grass that may be left. If the season is not too wet I always work my corn four times, but in very rainy seasons I have to put up with three.

I think corn should be worked every eight or ten days. The above crop was on high land. Soil light clay, somewhat a "mulatto" color. The field averaged twelve barrels to the acre—the lot a fraction over ten. The field was sown in wheat, and ploughed in with shovel plows—and should have been sown in plaster as soon as the wheat come up, but I was unable to get it. The lot was left to be seeded to oats this spring, also to orchard grass,

one bushel to the acre and one gallon clover seed to the acre. I may trouble you again by giving you the plan I expect to pursue with the field cultivated in corn and now seeded to wheat. Most respectfully, PIEDMONT.

Rappahanoek Co., Va., March 3d, 1873.

[Our correspondent, who is noted as one of the best farmers in his section of Virginia, will accept our thanks for his timely communication, and we will be pleased to hear further from him, in accordance with the intimation given.—Eds. A. Far.]

## Frequent Stirring of the Soil Increases its Fertility.

Mesers. Editors of the American Farmer :

In looking over the agricultural department of the March number of the Country Gentleman, published at Albany, N. Y., my attention was attracted to the advertisement of a Northern agricultural implement manufac-turer, headed "Harrow your Wheat"—which doubtless embraces the entire subject of the surface cultivation of all growing crops, a practice so common at the North, where lands are dear and labor scarce, that the small farmer is obliged to consider in all its various phases the economical application of labor-"that is to say," how to produce the largest number of bushels on the smallest acreage, with the greatest saving of labor and expense, and with the least exhaustion of the soil. This has led to the invention and introduction of a large number of improved implements which do away with the old-fashioned hand-labor system, that could only thrive on new and cheap lands, when prices of products were above the average-the old land, when exhausted, being exchanged for new clearings, until the increase of population and settle-ment compelled their renovation by a thorough system of improved farming, that was remunerative and at the same time self-sustaining; since which, the soil has been gaining yearly in richness and fertility.

The idea so common among Southern farmers, that they must put on the land as much as they take off, in some crude concentrated fertilizer, such as lime, guano or barn-yard manure, is, to a great extent erroneous. It never occurred to them that there are other sources of fertility, that the atmosphere is full of the essence of these fertilizers from decomposing vegetation, and in gaseous form, in which nature can distribute it to the greatest advantage and in the right places, and when and where it is needed, if the farmer will only attend to the surroundings and give nature a

chance.

All plants are nourished principally at the roots, through the soil; hence the necessity of frequent and constant stirring, to prevent the forming of a crust on the surface, which cuts off the action of the atmosphere through the porous soil, where the impregnated atoms are carried, to nourish and vitalize the plant.

The fresher the soil to the surface, the more channels there are to drink up from the atmosphere this better than liquid manure; the latter every time closes up the channel behind it, while the gaseous fertilizing atmosphere leaves the channel open through the soil like a honeycomb, only closing it when a moistened, then baked, surface, forms a crust, which it is the farmer's business to disturb.

The harrowing of wheat, barley, corn, oats, or any growing crop in the spring, breaks the hard packed surface, thoroughly pulverizes and loosens the soil in and around the plant, destroys the little weeds just forming in the crust, and prevents them from robbing the wheat, which being strongly rooted, is not injured by the very numerous small round, slanting steel teeth of the harrow, and at the same time it opens up the avenues for nature to supply the necessary food to rapidly insure its growth from the overladen atmosphere, a source that cannot be exhausted; and this is why it increases the yield from 5 to 10 bushels per acre, as claimed, (in which my experience fully coincides,) without exhausting the soil.

May our Southern farmers take advantage of these ideas. Then will our part of the country, by nature so favored, with her genial clime and fertile soil, hold her true position among the sister States, and not until she has adopted a higher standard of improved farming. Respectfully yours,

G. G. SMITH.

Harrisonburgh, Rockingham Co., Va.

## On the Making and Management of Manure.

To the Editors of the American Farmer :

This is a subject upon which there exists a wide difference of opinion. Some writers assure us that the ammonia readily escapes from manure when exposed to the action of the atmosphere, thus depriving it of an active manurial ingredient, whilst others affirm that manure—barn-yard manure—has no such evanescent qualities. Some again maintain that the quality of manure can be estimated alone by the nitrogenous matter contained. However this may be, whether all may be in some measure right, and all wrong, we do not attempt to decide; but we complain justly we think of the careless manner in which so many of our farmers act in regard to this matter. The manure from the horse stables is just thrown out of the doors, and allowed to accummulate in a small heap around the stable, some parts of the heap heating to such an extent as to render it almost useless as manure, while the outer portions of the heap usually have nearly all the manurial qualities washed out. For such mismanagement there is no excuse; a hand-barrow is a simple implement, easily made by any farmer, by the use of which the manure in the barn-yard may be kept mixed, so that none of it may over-heat. The writer once assisted in the management of an estate, where no expense was spared in making and preserving manure. Expensive buildings were crected in which to feed stock, roofed pits in which to place the manure where it was not allowed to over-heat, nor to become too dry. The manure always came out of those pits in the very best condition, but more simple and quite as effective means may be adopted, which with the commonest care and judgment will make manure of the best quality for general purposes.

As to the application of manure, we think the great mistake is made in putting manure too deep in the ground; in fact, it may be open to doubt whether it be necessary at any time to invert the soil as is now done in plowing, except in the case of sod, and in that case it perhaps would be better to plow the surface very shallow, breaking the earth deeper with sub-soil attachment, but not

throwing it out of the furrow.

We have ever looked upon a good scarifier as an indispensable implement in husbandry, and we cannot help looking upon it as a mistake that our farmers make so little use of it. Plowing ground very deep, and throwing the sub-soil on to the top is an error in nearly all cases; but ground cannot well be worked too deep, providing the soil be not inverted. Plowing the earth four to six inches deep, and then scratching the surface with a harrow, hardly deserves to be called working the soil. We think twelve to eighteen inches not too deep to stir the soil, and we have never yet been fortunate enough to have charge of land that has not been greatly benefited by such working. We do not say land cannot be made to produce very heavy crops when deeply plowed, and properly worked, even when several inches of a poor sub-soil have been thrown to the surface.

We once tried such an experiment, under directions, which proved a success, but we maintain that better results could, and have been obtained, with one-tenth the manure under a different mode of treatment. The readers of the "Farmer" may not concur in the views expressed, and we would like their ideas upon the subject.

N. F. F.

## Agriculture in Germany-Sheep Raising --Kainit.

To the Editors of the American Farmer :

Gentlemen:—Your letter dated Dec. 31st, 1872 is at hand, and I am ready to give any information about our husbandry. Before I answer your questions about kainit and sheep keeping, I feel myself obliged to give a general description of our husbandry. All over Germany every farmer is convinced, that no farming can be carried on with profit, when the farm is in want of a stock of cattle or sheep. Cattle and sheep are kept generally in such number, that they produce manure enough for all grain crops; and artificial manure is only given in surplus to land of the best quality, and to soil in the highest state of cultivation; on such land artificial manure will yet enlarge the harvest and make itself pay.

The general rule for our farmer is to keep a conformable stock of cattle or sheep, and to keep them all year around in the best condition. To produce much manure, half of the farm ought to consist of meadows, pastures, or clover, lucerne or lupine fields, to be cut in a green state, and dung enough by feeding all these foliage crops, will be gained to manure the other part of the field for grain crops. A good manure is produced when cattle are fed not only with straw, but hay of all kinds, oil cakes, turnips, and especially on food nich in nitrogen. Cheap manure is produced, when the receipts for butter, cheese, wool or meat cover the price of the fodder, and the manure produced is without cost.

The cheapest manure is under all circumstances that produced by our animals; it is the surest medium to keep soil in a lasting fertile condition. This manure suits all kind of soil. it is not lost when extraordinary draught or

wetness prevails.

Ten or twenty years ago the keeping of sheep was prevalent in Germany, and Germany indeed excelled in producing wool of the finest character; but since Australia overloads the European markets with wool, wool has a low price, and all farmers, wherever circumstances allowed, turned to cattle raising. In a region near cities, or with a thick population, on good clover soils or meadows, cattle are more profitable than sheep; light soil, thin population, distant markets, cheap land, stimulate sheep keeping. The advantages in keeping sheep are:

1. Wool can be shipped without loss or damage at any time to any distant market.

2. Sheep keeping saves labor; a single shepherd feeds or pastures generally six hundred sheep; only once a year in time of shearing

more hands are wanted.

3. Sheep are far more frugal than cattle; they nibble the scanty blade, and seek for the little grain left in straw, and bite off the empty ears of grain. On light, dry, hilly soils where scarcely food for cattle can be raised, sheep are in the right place. Mutton-sheep want a greater bulk of fodder, but eyen they dis-like low wet countries; low situations are dangerous for the health of sheep. The best fodder for sheep is the lupinus luteus, I men-tioned in my first letter. This plant as you recite the words of Loudon in your February journal—" is a vigorous growing plant, grows in poor dry plains where ground is too sterile for clover." Sheep are very fond of this plant, made into hay; they like the seed just as well, and fatten by it; lupinus contains a bitter stuff, very favorable to the health of There ought to be sown of lupinus lutous 14 bushels per acre, lupinus angustifolius 2 bushels to an acre. The first will sprend more, the second grows faster upwards; the first is preferred, but the second grows surer in some localities.

The price of seed you mention in your American Farmer is rather high; a bushel costs here about \$1.25 to \$1.50, but the seed is very delicate against dampness, and may

be easily spoiled on a sea voyage. Good seed ought to show a fine lustre; luteus is white and black spotted; angustifolius is gray and a little white spotted. Lupinus albus is only sown for ploughing under. My opinion is that Virginia would make a good sheep raising country, and should the sheep holders be in want of hands to carry out all the manure produced by sheep, they may hurdle their sheep over night, and turn these hurdle places under as soon as possible; they will bring after this a full harvest. Sheep ought to be never without a shepherd, they feel themselves more safe and easy as long as the shepherd is with them.

Now about kainit. Kainit is not very extensively used in our country; wherever we use artificial manure, we prefer ammoniasuperphosphate, containing about 10 per cent. nitrogen, and 10 per cent. soluble phosphoric acid: on many locations the soil appears not to be in want of potash. Only in those parts of Germany where land is already in a very high state of culture, where year after year on the same field sugar beets, potatoes, or tobacco are raised, the land wants an addition of potash. In that region where within a few miles a great number of sugar factories stretch up their chimmeys, the chemical products of Stassfurt are indispensable.

For distant regions potash of higher per centage would be more practicable, for instance, sulphate of potash, 90 to 95 per cent, or sulphate of potash and magnesia, containing 52 to 56 per cent. sulphate potash, and 36 to

37 per cent sulphate magnesia.
The sale of kainit is not a monopoly; the mines are the property of the governments of Prussia and Duchy of Anhalt; they sell raw salt cheaply, about 18 cents a hundred pounds; but all factories in Stassfurt and Leopoldshall, preparing the raw salt in different forms of potash, have their firms united in one joint stock company, and of course make them-selves no more competition. These united factories complain at present of dull business, and ask the two governments to let them have the raw material still for lower price.

All chemical analyses of soil will not settle the question, what kind of manure the soil wants most, and I would advise your farmers to give their land a trial on a small scale every year. If they lay out parcels of land of the same quality, give one of them manure containing principally nitrogen, another phosphoric acid, another sulphate of potash, and one of them all these principal materials united; sow all these parcels with wheat or corn, weigh the harvest of every parcel, straw and corn, and compare the results; they soon will be able to judge whether all ingredients are necessary on their farm to produce a full crop, and whether they have received their money back in the form of wheat or corn. In a country where land and agricultural products have low prices, it is a great risk to lay out too much money in raising grain. A safer way to succeed is, to raise fodder, grass, clover, etc.; fodder will produce manure, manure will raise grain, grain will bring money. Yours very respectfully, E. WENIG. Neudorf bei Schonlanke, Prussia, Feb. 21, 1873.

### Sainfoin or Holy Hay.

Editors of the American Farmer:

Though but a young farmer, I am thoroughly convinced that without the successful culture of grass there can be no profit in farming nor permanent improvement to land. Your valuable journal has done great good in this direction, but I feel as if you could not say too much on this subject. Impressed as I am with its importance, I cannot resist sending you another extract from "The Art of Husbandry," on St. Foin or Holy Hay, which the author ranks next to "Clover Grass":

"St. Foin, where it will grow, is esteemed one of the best of these sorts of grasses, because of its long continuance and bulk. In many lands it will last twenty or thirty years. Besides it improves the land it grows on very much; for the plowing in of the roots is excellent manure for it, which is what is not usual with these sorts of seed. You may break up your land, and sow it with corn 'till 'tis out of heart, and then sow it with St. Foin again. 'Tis reported to grow on any dry, barren land, where hardly anything else will grow; and the roots running deep, and growing great, are not soon dried up by the parching heat of the sun; though 'tis reckoned to thrive best in a shallow ground, because else in sown soils 'tis apt to run too deep. But I could never find it to grow upon any soil in these parts, except chalky lands, as at Royston in Hertfordshire, where it grows upon the miry, chalky clays, and upon the driest part of Royston Heath, which consists of dry, chalky hills. In some parts of Dor-setshire, they say, it grows on very stony, dry hills, where the earth is not above half a foot deep, its roots running in between the cracks of a flaky limestone, the earth being a light red loam, which makes me conclude it to do best on land that is sweet, chalk and limestone being both of a sweetening nature to land; but I could wish that some particular observations were made of the nature of the several lands in the several counties where it doth grow; for 'tis certainly one of the best improvements of land that can be made use of where it will take, especially where manure is scarce. You may sow rey grass with your St. Foin, and I am told it makes a great improvement of it, and yields a good crop the first three years. You may sow five bushels of St. Foin and one bushel of rey grass on an

"It must be sown in far greater quantities than the clover seed, because 'tis a larger, lighter seed. They commonly allow four bushels to an acre. You need not fear sowing of it too thick, because it the sooner stocks the ground, and destroys all other grass and weeds. It may be sown alone or with oats

and barley, as the other grass seeds are; but you must be sure to make your ground very fine for this and all other grass seeds. Do not feed it the first year, especially with great cattle, because the sweetness of it will provoke the cattle to bite too near the ground; and the large cattle treading of it is a great injury to it, especially in wet weather; and therefore 'tis best mowing of it the first and second year, and after that it will be out of danger. The marling of 'St. Foin makes a great improvement of it for three or four years, when 'tis almost worn out, and after that the grass which the marle produces will be near as good as the St. Foin.

"The best time for sowing of it is in autumn, from the beginning of August to the end of September, if sowed alone; but if mixed with other grain, in the spring, from the beginning of February till the end of March; the earlier 'tis sown in either season the better; and 'tis better to be sown alone, than with other grain. If you reserve it for mowing, it must be laid up by the latter end of March. The time of cutting of it is when it begins to flower, which is about the middle of May, sometimes latter. This sort of hay is very excellent for horses. It is the best food for great cattle, especially in the spring. It breeds abundance of milk, and the butter that is made of it is very good. If you feed it with sheep, let it be in autumn and in the winter; it fattens them very speedily."

I will add a short account of this plant,

taken from the Encyclopedia Americana: "Saint Foin .- A plant, somewhat resembling the pea, which grows wild in the countries about the Mediterranean, and is often cultivated elsewhere for fodder. The stem is about a foot and a half or two feet high; the leaves are pinnate, composed of small leaflets; the flowers are pretty large and showy, of a fine pink color, and are disposed in a short spike, upon a long axillary peduncle. Cattle are extremely fond of it. In its wild state it is only found on dry, warm, chalky soils, where it is of great duration; and it is chiefly in such districts that it is cultivated to advantage. Its peculiar value is, that it may be grown on soils unfit for being constantly under tillage, and which would yield little under grass. The seed is generally put in broadcast, at the rate of three or four bushels to an acre, and sometimes a little red clover is sown afterwards, to produce a crop the second season, when the St. Foin plants are but small. St. Foin is highly nutritive, either cut green or made into hay. The produce, on a medium of soils and cultivation, may probably be estimated at from one and a half to two tons the acre. The usual duration of this plant in a profitable state is from eight to ten years. It ordinarily attains its perfect growth in about three years. The proportion of nutritive matter in Saint Foin is estimated equal to that afforded by white and red clover. E. R. C.

Cumberland Co., Va.

[So far as we know, experiments made in

this country with Sainfoin have not demonstrated its value as a forage plant adapted to our circumstances. It seems to succeed only on soils of a peculiar consistency and constitution, not frequently found; and as it needs three or four years before it acquires its full growth, or vigor sufficient to withstand our winters, it is not probable that it will ever come much into use among us. Mr. Howard, however, whose little manual we noticed last month and to the value of which we cannot bear too full testimony, says of the plant that it is well worthy of experiment in what are called rotten limestone lands, as where it thrives well it is placed at the head of forage plants.—Eds. A. F.]

## Live Stock.

## The Jersey Herd Book.

Mesers. Editors of the American Farmer ;

I do not propose to enter into a discussion with your correspondent Mr. L. E. Rice. Opinions may honestly differ, and I shall not seek to convert him to mine. Regarding one or two matters of fact, it is proper for me (as the responsible Editor of the Herd Regis-

ter) to say a few words.
1. "Angelina Baker" was a very well known Jersey cow. The note, in the first volume of the Register, concerning the changes in R. L. Colt's stock, sufficiently show that after a certain time he had only Jersey cattle in his herd. It is also well known that Mr. Taintor's "Alderneys" were Jerseys. The same is known of other early importations. After a very careful consideration of the whole subject, the executive committee decided that the true interests of the Jersey breed of cattle in America required that we should include in our list the superior animals, -of undoubted purity,which had done so much to bring the race into For four years we have kept our lists open to all animals of this class, admitting all that were offered, with sufficient evidence to warrant it. The rule by which Mr. Rice would have us exclude the cow in question would have excluded the Godolphin Arabian from the English Stud Book. Although she is entered as No. 13, her case was under advisement for two years before she was approved by the committee.

2. It is well known that the Taintor and Norton importations all came from the Island

of Jersey

3. Mr. Maitland lived, and had most of his herd, including "Jura," "Comet," and "King Philip," within a mile of my office at Newport, and I was in frequent communication with him about them and about the Herd Register. He was always most kind in giving

information as to the pedigrees of animals tracing to his herd; he expressed much interest in our work; and nearly if not quite all of his stock have been registered,-much of it with his own approval.

4. Mr. Billings was not an importer of Jerseys. I am confident that he never even had an animal imported. He always bought from Mr. Taintor, at Hartford, selecting imported or bred animals as he might find them to suit

5. It only remains for me to say that up to the end of 1872 we received, and faithfully ex-amined all pedigrees of Jersey animals that were sent to us. We also did all in our power to induce owners to send in their pedigrees. If we have ever rejected an animal of "precisely the same blood" with those accepted, it has been because the evidence that it was so either was deficient in some vital point, or because it rested on the assertion of persons who, for one reason or another, were not considered reliable authority

GEO. E. WARING, JR., Sey of the American Jersey Cattle Club.

## The Dairy.

THE NATIONAL DAIRYMEN'S ASSOCIATION held its annual meeting at Utica on 14th Jan. Gov. Seymour, the President, delivered an address, on the subject of "the use of the microscope in cheese making," which he highly recommended, as enabling the milk men to be more cautious in preserving their milk cans from the influence of fungus growths.

Discussions were had upon various subjects connected with the details of the dairy, but not of material interest to our readers, in the present state of Dairying in our vicinity, except the following:

Mr. Bliss, in a talk on butter factories in northern New York, held that good cheese and butter could be made in any locality where there were good feed and water, unless there were climatic difficulties in the way which could not be overcome. He said that he took no stock in the notion that there were some sections where good butter could be made, but not good cheese, and vice versa. thought that it required the same kind of soil, water and feed to make the one as the other. and that the fame which certain sections have was without real foundation in fact. opened the whole butter question, some taking sides with Mr. Bliss, while others contended to the contrary. In the discussion it was correctly stated that there were ridges of land in dairy sections more favorable to butter than others. This is undoubtedly true, but does not invalidate the general proposition in the least.

Mr. Arnold addressed the convention at

length on the dairy interests of the United States, reviewing the work done in former years, and called attention to the fact that any one going into a hundred factories in the country would be struck by the uniformity of the process in the manufacture, and the sameness in the products, as far as cheese is concerned. That this was not so in the butter products, he attributed to the fact that buttermakers had not taken such means for associated investigation and discussion as cheese makers. He would be glad to welcome them to the meetings of the convention.

The subject of the manufacture of "Skimmed Milk Cheese" was discussed, and, by resolution, it was decided to be bad policy, as it is calculated to lower or depreciate the quality and product of American Checse in

Europe.

N. ENGLAND AGRICULTURAL SOCIETY. The annual meeting took place in February. Dr. Loring, the President, congratulated the Society on its success thus far. He alluded to the Agricultural meeting held at Washington a year ago, and regretted that owing to the action of the Commissioner of Agriculture, the efforts of the committee to call together this year a similar convention had failed. proposed establishing in every State an Industrial College, "from whose walls shall go forth on each succeeding year a band of welleducated young men, capable of applying the best methods for the development of every industry, and of strengthening man's hand and encouraging his heart in all his hardest fields of labor.'

A resolution proposed by Col. Needham was adopted unanimously, looking to the displacement of the present Commissioner of the Agricultural Bureau at Washington-that "the farmers of New England demand a more comprehensive and active management of the Agricultural Department at Washington; and they also demand that some gentleman who has to a much larger extent the confidence of the people be called to its head." This is believed to be preparatory to an effort some time since contemplated, to have Dr. Loring placed at the head of the Bureau.

VERMONT STATE BOARD .- The annual meeting was held on 16th Jan. and several papers on agricultural subjects were read—one on Root Culture, by J. S. Montague. He has great success with carrots; ploughs his land deep, ten or twelve inches, then manures with sheep manure mixed with muck, very fine, thirty to forty loads per acre; this is spread and ploughed in, the land harrowed; sows the rows twenty inches apart. The seed, having been soaked twenty-four hours, is dried off with plaster and sown by shaking a box having holes in it, along the rows. Covers with a rake about an inch deep. Begins to hoe as soon as the plants appear, and hoes often enough to keep the weeds down. Crop 800 to 1000 bushels per acre. Turnips raised under about the same treatment.

## Korticulture.

## Winter Apples and Pears.

Messrs. Editors of the American Farmer: In your No for March appears "An inquiry for winter apples and pears that will succeed best in Md.," from J. P. J. Hubbard, and a re-ply from my friend Brackenridge, proprietor of "Rosebank Nurseries," with a list of varieties which he recommends. If, Messrs. Editors, you will allow me, I should like to say a few words upon this list, in the hope that they may prove of value to Mr. Hubbard and others of your readers interested in the subject of fruit growing; and should Mr. B. and I not exactly coincide, we shall only resemble the scientific experts of the day, with, I trust, this difference, that our views have something more substantial than "phantoms" for their

I agree with the statement that "eight kinds of apples are numerous enough for market purposes," but think it hardly probable that Mr. Hubbard will find all the varieties named "desirable in every respect." With me but four of them have proved profitable, and if any one planting an orchard for the first time can get one-half the varieties recommended for general cultivation to succeed with him, he may be satisfied. I would therefore beg leave to add to the list given the four following kinds, which have established for themselves a wide-spread reputation :

Buc'telor or Bulloch Pippin, of Pa.-Fruit, large to very large, uniformly perfect in shape; color, greenish-yellow, with bright red cheek -always brings a high price, not withstanding its tartness, from which no doubt the name Bachelor originated. It is a moderate bearer

and makes a handsome tree.

Winter Paradise.—Fruit, medium to large; color pale green, with brownish cheek; very sweet and high flavored, keeps well, good for desserts or cooking, bears well and makes a neat looking head. *Pennock*, a well known Pa. fruit, of lage size, deep red color, bears well in most soils.

Golden Russet .- Fruit, small to medium; keeps well; its size rather an obstacle to its sale, but few who once taste it will hesitate to pronounce it first rate. A good bearer and hand-

some tree.

Of the eight kinds named by Mr. B., I should place Tulpehocken at the top instead of the bottom of the list, as I think any one might safely plant one-half of his orchard of it. In this county, (Balto.) it appears to succeed equally well on all kinds of soil, from the stony lands of the upper districts to the alluvial soils on tidewater. It is a regular bearer, the fruit is large, uniformly perfect in form, keeps well and as a table fruit is a favorite with all who are acquainted with it. The name of this apple, correctly spelled, is Tul-penhocke, meaning in English, heaps of tulips, probably from the showy appearance of the tree when in blossom. It also bears the synonyms Fallenwalder (corrupted into Fallenwalder) and Mountain Green. Gilpin or Carthouse is not so popular now in the Baltimore market as it was 30 years ago, but owing to its long keeping, it can be held back till fruit is scarce, and commands a good price. It may be kept into June in a good cellar. Raule's Junnet bears well with me, but is not above medium size. Smith's Cider maintains here the high reputation it bears elsewhere. The above are the only kinds upon the list given by Mr. B. that have proved profita le with me; still the others are all fine varieties and worthy of trial wherever their merits have not been twiced.

have not been tested. Of the list of pears, I would say, I have never eaten a Vieur of Winkfield that I thought even "good," but those brought here from California. Still it is a profitable variety, as it is good for baking, canning and making marmalade. The Lawrence needs no endorsement from me. Win er Nelis and Glout Morceau are both fine table fruit, but if allowed to overbear, to which they are inclined, the fruit will be flav riess and insipid. Of Beurre Did I would say, first, instead of "fair" quality; but to have it in perfection, it should be ripened off in a warm room, and before cating, the skin should be removed, as its astringency is rather suggestive of green persimmons. In addition to the above I would name Prince's St Germain, which has a good reputation, and the old Cattillac, which though fit only for preserving, brings about as much money as most other varieties. Quartered and preserved in sugar, it resembles the quince both in color and flavor. In conclusion, I would call special attention to the letter of J. W. Kerr, in the March No. of the Farmer, as I concur in the opinion therein expressed, that many local varieties of fruits may be found, which, though "unknown to fame," may, upon trial, prove more desirable in the region where they originated than others brought from a distance.

Lake Roland, Balto. Co., Md.

## Vegetable Garden-Work for April.

Everything is now activity, and he who has been able to do the most in the dull months will be apt to be the foremost in the lively ones. Of course the sowing of seeds varies according to the locality and the season, and our suggestions being adapted to this latitude, are to be received with some allowance for difference of situation. The hardy varieties of vegetables may be sown as soon as the ground is dry enough to work, there being included in this division, Beets, Carrots, Cabbages, Lettuce, Parsley, Parsnips, Peas, Radishes and Turnips; whilst the tender class gain nothing by planting before the weather is settled and the earth warmed. This sec-tion comprises Bush and Lima Beans, Cucumbers, Melons, Sugar Corn, Okra, Squash, Egg-Plants, Peppers and Tomatoes, and it is

only time to sow or set them out when the season of corn planting comes.

We gave a list last month of varieties of vegetables generally esteemed the best and most reliable of their kinds, and we now make some notes of their management.

Asparagus beds are to be dug over and new ones made. Give a good dressing of manure. Beuns may be planted as soon as the ground is well warmed. The Valentine is the standard and Black Wax is one of the best of snap varieties. Plant in drills 2 feet apart. For pole beans the poles ought to be set before the beans are planted. Some persons use two or three hoop poles set a foot or so apart and tied together at the top. Beets may be sown in drills a foot or fifteen inches apart. Broccoli should receive the same treatment as cabbage. Cabbage sown in hot-beds or wintered over, ought to be set out.

Carrots.—Sow the same as beets. It is not well to sow too early. Cauliflower is now to be sown for fall. That sown in hot-beds to be set out. General treatment the same as cab-bage. Celery is to be sown in a rich moist part of the garden. Corn.—Risk a few plantings of early kinds. Cress may be sown in drills a foot apart. Horse Radish roots ought to be planted as early as possible. Leeks, sow like onions. Lettuce is to be set out from cold frames or hot-beds, and sown in seed-beds. Melons and Cucumbers are to be started as suggested last month. Onions should be put in as soon as possible. Seed for sets ought to be sown very thick. Parsley is to be sown in foot drills. Peas ought to be sown in succession. Make rows of dwarfs one foot, of the tall growing from two to three feet, apart. Potatoes ought to be in. Radishes may be sown in succession. Rhubarb beds ought to have a good coat of manure. Salsify is sown early in 16 inch drills. Spinach may be sown in succession. Tomatoes may still be sown in hot-beds, and those already grown under glass set out as soon as the soil is warm.

#### Prolific Corn.

Having seen some notice of a crop of corn raised in Nelson Co., Va., by the Hon. Wm. Porcher Miles, we addressed a note to that gentleman, requesting him to give us some account of the variety, with the mode of cultivation adopted, hazarding the suggestion that the latter had probably more to do with the wonderful crop grown than the particular variety, in which surmise, however, as will be seen by the rep.y which Mr. Miles has been good enough to make us, we were mistaken. We believe the enormous yield here reported is almost without recorded precedent. We give the letter of Mr. Ml. and the printed certificate to which he refers:

Messre, Saml. Sands & Son:

Gentlemen:—I have received yours of the 6th inst., inquiring about the immense yield

of corn at Oak Ridge last year. In answer, I cannot do better than enclose you a copy of a certificate I drew up for Mr. Hudson. (who cultivated the crop.) at his request, with the affidavit appended of himself and son. I did not measure the land myself, but did see the experiment of shelling the corn. But the land being a piece of level bottom, there could not have been any mistake in measuring off an acre. The land I should say is exceptionally rich alluvial soil. No fertilizers were used. The season was a very bad one from excessive drouth-so much so that the general crop of corn (ordinary seed that I have been using for years, but an excellent variety) on the adjacent high land in the same fieldland of a very excellent quality-was almost

There was nothing special in the cultivation. Indeed I don't think the crop was any of it very thoroughly worked, from too wet weather in the spring and early summer. It is undoubtedly a very superior variety. I have not seen it tested, however, on high land, but Mr. Hudson tells me he has always got fine crops from it wherever he has tried

Very respectfully,
WM. PORCHER MILES.
Wm. Porcher Miles. Oak Ridge, N. lson Co., Va., March 10, 1873.

HUDSON'S IMPROVED DOUBLE-EARED CORN.-This corn, which Mr. Ed. W. Hudson has been carefully cultivating and improving for several years, produced last year on some very rich bottom land on the Oak Ridge estate, in Nelson county, Va., on the Orange, Alexandria and Manassas Railroad, the enormous yield of

170 bushels per acre!

It was 28 barrels to the acre, and it shelled out six bushels and three quarts to the barrel. Most of the stalks had two ears, many three, some four, and one stalk had seven ears upon it-this stalk was exhibited at the Lynchburg fair, where the corn took a premium-and has been seen with admiration and astonishment by hundreds of persons.

Affidavits to the above facts have been made by Mr. Hudson and sons-all of them hard-working and industrious farmers, estimable and reliable men. They are tenants upon the Oak Ridge estate.

WM. PORCHER MILES, Oak Ridge.

Desirous of seeing this remarkably productive variety of corn widely disseminated, for tests in a variety of situations, we have obtained from Mr. Hudson a limited supply of it, and will send to each subscriber of the AMERICAN FARMER, who will forward us a stamp to prepay return postage, a small packet of it free. This offer, of course, includes subscribers coming in after this date as well as those whose names are now on our books. In writing give us your name, post office, county and State plainly written. Do not suppose because you are a subscriber we know all these, and do not forget to enclose a stamp, which is a condition of this offer.

## The Loultry Hard.

DOUGLAS MIXTURE FOR FOWLS.-A gentleman of much experience in raising poultry and who is very successful with it, informs us that he attributes the freedom of his flocks from disease to the use of this mixture, which is highly recommended also by Mr. Wright, the well known writer on poultry. It is said to act as a tonic, to guard against roup, and is very useful when towls are moulting. It is made by dissolving | lb. of sulphate of iron in two gallons of water and adding 1 ounce of sulphuric acid. Put one teaspoonful of this mixture to each pint of water in the fowls' fountain.

CONDIMENTS IN POULTRY DIET.—Cavenne pepper, mustard, or ginger, can, with great benefit, be added to the food of fowls, to increase their vigor, and to stimulate egg production. This apparently artificial diet will be seen to be natural if we remember that wild birds of the gallinaceous species get access to very many highly-spiced berries and buds; articles that give the "game flavor" to their flesh. The ordinary food of the domestic fowls is not, indeed, entirely without some such addition, since there is more or less of an aromatic principle in wheat, Indian corn, and all other grains. Nevertheless, it is not sufflcient in quantity to supply the place of the stronger spices, a taste for which is part of the fowl's inherited constitution. A moderate quantity of cayenne, &c., added to the ground grain is always productive of health and thrift in poultry .- The Poultry World.

CHOOSING HATCHING EGGS.-Eggs for hatching should be choosen of the average size usually laid by the hen they are from, any unusually large or small being rejected. Some hens lay immensely large eggs, and others small ones. A fat hen will always lay small eggs, which can only produce small and weakly chickens. Absolute size in eggs is, weakly chickens. Absolute size in therefore, of but little importance. short eggs are usually the best to select; very long eggs, especially if much pointed at the small end, almost always breed birds with some awkwardness in style of carriage. Neither should rough-shelled eggs be chosen; they usually show some derangement of the organs and are often sterile. Smooth-shelled eggs alone are proper for hatching. It is a farce to suppose that the sex of a bird can be determined by the shape of the egg.-Uanada Poultry Chronicle.

In caring for your fowls, provide them with a vessel of lime-water for an occasional drink. It is prepared by pouring hot water over quicklime, and after the lime is settled, and the water covering it has become clear, pour it off. It will keep fit for use for a considerable time.

## The Apiary.

## Errors in Bee Literature.

Editors of the American Furmer:

I trust you will bear with me in criticising an article in your last number headed "Bees and Bee-Hives," and which so evidently bears the impress of being published in the interest of some "patent hive" that in my opinion it would be injurious to the partially informed bee-keeper to permit all the statements therein to pass as truths connected with apiculture. The entire article is evidently written by the theoretical "patent hive man" who conceives he has discovered a remedy for all ills of beekeeping, and embodies the same in a peculiarly constructed hive, rushes a model thereof through the Patent Office and claims to the beekeeping farmer that this is the patent cure-all that will dispel all doubt and uncertainty in regard to bees, especially if governed by the rules furnished-which, although covering the whole ground, are made up from a portion of a kernel picked from some text book and well mixed with a large quantity of theory and

In my opinion the practical information therein is so covered up with statements that will not stand the test of practical examination and comparison, that in many cases the entire article will be more injurious than bene-As an instance, the article says: "A colony in early spring is composed of a Queen and from thirty to fifty thousand workers, and as the summer approaches increases rapidly," but as the bees only live "six or seven weeks, and the Queen only lays in the height of the honey season (which does not occur in early spring) "one to two thousand eggs a day, such colony must have other means of increasing than from the eggs laid by the Queen, as it takes twenty-one days from the time the egg is laid for the young bee to emerge from its cell, it would be necessary for the Queen to lay at least two thousand eggs a day from the very commencement of early spring to keep the colony that had forty thousand bees at that time up to its numerical strength; to increase rapidly it would be necessary to have either a duplicate Queen, who would supply the missing eggs, or else the single Queen would be called upon to exceed the rule laid down, and lay from four to eight thousand eggs a day to increase rapidly and furnish the necessary bees to make new swarms of a size equal to a colony at early spring. A Queen who could perform such a feat would be so great a rarity that I must infer there is an error in some of the statements made, or else the author, if such statements are from observation, has bees that are entirely different from any I ever saw. My experience with bees has convinced me that a colony that passes the winter and at early spring has twenty thousand workers to commence operations with, is in better condition than three-

fourths of the colonies in the United States at that time; and that Queen who at the time of first spring blossoms appearing lays five hundred eggs a day, such colony excels ninetenths of all the bees kept. That the Queen will lay two thousand eggs a day there is no doubt; in fact I have known Queens to lay over three thousand eggs in twenty-four hours, and continue at that rate for several days.

As to the Queen being an "absolute ruler," such nonsense deserves to be embalmed with the old bug-bear "luck" and laid away with the mummies of the past. She is the mother of every bee in the hive, if she has been therein six months in the winter, and three to four months in summer, around whom cluster and centre the affection and instinct of preservation of the entire colony, and although her loss will for a very short time disturb and alarm the colony, on recovering from the alarm consequent on discovering such loss, the colony will pursue and perform its usual duties with the same care and exactness as though in possession of a Queen, and under the care of a practical and painstaking apiarian such colony can be kept an entire year without a Queen. A course of this kind however would not be profitable, though satisfactory as an experiment.

If the author of the article has a race of bees, whose Queens he will guarantee to live from three to five years, he has within his reach a mine of wealth, as a ready sale and large demand would result from the possession of such improved breed. I have found a large number die within the first year, and very few survive until the third year.

As to a colony rearing drones in great numbers, such colony needs attention, and the pruning knife of the bee-keeper, and any colony that keeps drones within the hive during the winter needs the care and strict attention of him who considers such colony worth saving, as there would be little doubt of the same being queenless or in possession of an unfertile Queen.

That the workers perform all the duties of the hive is no new light on an old subject, but that they live only three to seven weeks in the busy season is certainly new to me, for my bees are so queer in their habits that they very seldom leave the hive to gather honey until from three to six weeks old, and as a rule, spend at least from four to eight weeks in that duty previous to crawling away from the hive to die. I had arrived at the conclusion that the life of a worker bee was as follows: the bees reared after Oct. 1st survive until the opening of the next spring, say four to six months; the bees reared during spring and summer survive from three to four months.

As to the plan of bee-house, &c., I have nothing to say, except that much after experimenting 1 set my hives on two pieces of 3x4 scantling laid flat upon the ground, and think any observing bee-keeper will become convinced of its economy and utility over the high bench or stand. The grape shelter is good, but the shade of a tree is of fully as much utility.

# The American farmer

## RURAL REGISTER.

### PUBLISHED ON THE FIRST OF EVERY MONTH BY SAML, SANDS & SON.

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BALTIMORE, MD., APRIL 1, 1873.

#### Binding the Farmer.

We have made arrangements by which persons desiring to preserve their files of the Farmer, can have them neatly bound at a cost of 50 cents per volume, by forwarding them to us. The money for the binding (and 36 cents for return postage, when they are to be sent back by mail,) should be forwarded in a letter with the announcement that the numbers have been sent us, that we may know to whom each set belongs.

#### The January No. of this Volume

Can no longer be furnished, the demand for it having exhausted our supply. We recommend new subscribers to begin with the March No. To any of our friends who do not preserve their files, we will be much indebted if they will mail us their copies for January, and we will credit all such 15 cents on subscription account.

### Bound Volumes of the Farmer for 1872.

We have a very limited number of complete sets of our last volume neatly bound, which can be had at our office at \$2 per volume, or which we will send, postage paid, by mail for \$2.25.

## OUR PREMIUMS.

In consequence of the cold weather and the bad condition of the roads, a number of our friends write us that they have not been able to get about in their respective neighborhoods to complete their clubs for the Furmer, and as we are desirous that the fullest opportunity may be afforded all who are endeavoring to secure one of the liberal premiums we offer, and, of course, at the same time increase as far as possible our subscription list, we announce that the time for the closing of our offer of premiums is extended from the 31st of March to the 30th of April. We hope that all who can do so will vigorously canvass for names for the Old Pioneer, and so assist us and secure for themselves one of the haudsome and useful premiums in our list.

To f course all persons who have forwarded lists and notified us of their desire to secure a premium, can obtain at any time such as they may select and are entitled to, or they can add to lists already forwarded and receive, when desirable, one of higher value.

### The "Farmer's" Contributors.

If we have any vanity about our old journal, it arises, instead of from any high estimate we put upon our own services, rather from being able to present to our readers the productions of such numerous and eminent agriculturists as are represented from month to month in its pages. Those who appear in this No. constitute as usual a galaxy of talent and skill, of which we may well be proud, and we express to all of them our sense of the obligation they confer upon us by their communications.

PLANTS BY MAIL.—Lovers of flowers will find in the advertisement of Messrs. Massey & Hudson, something which will be of interest for them to read. This firm make a specialty of forwarding plants by mail, and as we know from experience with a small lot sometime since received from them in that way, it is a very convenient, safe and economical method of purchasing plants. Those we bought never drooped, and are all now in bloom. To persons not convenient to greenhouses, the advantages of thus being able to get new and rare flowers are very great. We recommend a trial to our lady readers.

### Letter from Mr. Newton.

It will be with sincere pleasure that the many friends of this venerable and distinguished gentleman will read the letter from him on another page, and all will join with us in congratulating him upon the improvement in his health which he announces, as well as unite in the Lope expressed by himself, that "with the singing of the birds in Spring," his strength may be fully restored.

We trust the day is not remote when he may be able to resume his writings for the benefit of our readers. The questions to which he refers are not such as attract the superficial, but upon their correct settlement rests the future prosperity, not only of our agricultural, but of all other material interests; and no pen equals his own in illumining these dry subjects by a richness of illustration, and an eloquence of diction that render their discussion not only instructive, but attractive reading.

In a communication just received (too late for this issue,) an esteemed correspondent in South Carolina expresses the general estimation in which Mr. N's contributions to the Furmer are held, by saying, in speaking of the letters upon Labor and Immigration, "there can be nothing added to his remarks to increase their pertinence and force."

## Acknowledgments.

To a much respected lady friend of Southampton, Va., Miss J. E. T., we 'express our thanks for a barrel of unusually fine sweet potatoes, and for a description of a new and prolific variety of cotton. The esculents were highly enjoyed, and recalled kind thoughts of "auld-lang syne;" and a notice of the cotton was prepared for publication in the Farmer, but in some unaccountable way it was mislaid, and has not yet been recovered.

Our friend Ro. L. Sibley, Esq., of Matthews, Va., to whom we are indebted for a good club each year for the Furmer, sends us a specimen of the agricultural productions of his section, in the shape of a barrel of very superior York River oysters, which have been fairly tested by competent judges, and

seeds, which were invariably found fresh and reliable, sends us packets of seed of his new Canada Victor Tomato and Marblehead Squash, to which we will give a trial.

DEATH OF AN AGRICULTURAL EDITOR .-Hon. Simon Brown, for many years agricultural editor of the New England Farmer, one of the most ably conducted farm and family papers in the Eastern States, died at his residence in Concord, Mass., on the 26th of February in the 72d year of his age, much lamented by all who knew and appreciated the eminent worth and usefulness of the man.

#### Corn for Distribution.

Such of our subscribers as desire to try a few hills of a very highly recommended prolific corn, are referred to a notice concerning the same on page 152 of this No.

"AGRICULTURE AS A PURSUIT," a lecture delivered before the Agricultural Class of the State University of Ga., Jan'y 29, 1873. By Dr. E. M. Pendleton, Professor of Agriculture and Horticulture. This address reviews the progress made in scientific agriculture during the century, makes an ardent appeal in favor of liberal education for the farming classes, and an earnest argument on behalf of the advantages offered by agriculture as an occupation; and is a fitting and graceful salutatory by Dr. P. upon assuming his new duties.

MESSRS. ELLWANGER & BARRY, Rochester, N. Y., send us their catalogues, No. 1, of Fruits; No. 2, 'Ornamental Trees; No. 3, Greenhouse Plants, and No. 4, Wholesale List.

The business conducted by this well known firm is one of the most extensive in its line in this country and the land now occupied by their nurseries, specimen grounds, &c., is 650 acres. During 1872, it is announced, the firm took over forty first prizes at the different fairs where they exhibited. A specialty in their business is the growing of rare Ornamental Trees.

#### Stock Notes from Mr. T. S. Cooper.

Mr. Cooper, of Coopersburg, Pa., reports to us a considerable list of sales of his fine stock, pronounced worthy of their origin. Mr. S. will accept our thanks for the same.

Mr. J. J. H. Gregory, of Marblehead, Mass., from whom we have for several years bought

a considerable list of sales of list of selection in the stock, among which we find that of the short-horn bull, "Duke of Lehigh," to Lewis Sniveley, Esq., Fairview, Md; the short-horn heifer, "Dutchess of Lehigh," to M. N. Sniveley, Esq., Fairview, Md.; the short-horn cow, "Princess Luan," to Dr. S. Harris, Pittsboro, N. C.

Mr. Cooper has purchased from Philander Williams of Taunton, Mass., his entire stock of Partridge Cochins, over 80 head, including several imported and all his noted prize winning birds, Mr. C. intending to make a apecialty of breeding this variety.

### LIST OF PREMIUMS

Offered for subscribers to the American Farmer for 1873. The subscriptions can either be sent at the regular rate of \$1.50 each, or at the club rate of \$1 each. The table shows the number of names required at each rate for the respective articles named.

			No. Nub seribers at	
	ARTICLES, viz:	Value Premi	81.50	81.00
N	O. Backwith Sawing Machine	@19.00	12	41
2	Beckwith Sewing Machine	25 00	80	
3	Bickford Kuitting Machine Florence sewing Machine Grover & Baker Sewing Machine.	55 00		156
4	A collection of Flower or Garden	55 00	75	150
0	Seeds or an assortment of Plants			
	Seeds, or an assortment of Plants and Vines of same value	5 00	10	26
6.	. A \$10 collection of Seeds, or of	10.00		
-	Plants and Vines A \$20 assortment of Seeds or Plants	10 00	20	46
	or Trees, your own selection, from			
	any of our advertisers	20 00		80
8		25 00 110 00	40	66
9.	Buckeye Mower Kirby Self-Rake Reaper	160 00		
11	Woods Self-Rake Reaper, with Mowing Attachment			
	Mowing Attachment	190 00	250	654
12	A pure bred Cotswold, Southdown or Shropshire-down Ram	40 00	80	126
13.	A thoroughbred Jersey, Ayrshire,			
	or Devon buli caif	75-00	100	150
14.	A thoroughbred Short-Horn bull	100 00	150	997
15.	A pair of pure bred Essex or Berk-		200	-
	shire pigs	40 00	80	120
16,	A pair of Chester White pigs Silver-Plated Revolving Butter	30 00	00	-90
**	Cooler	10 00	20	46
18	Silver-Plated Breakfast Castor Set of Dessert Knives, ivory han-	8 00	15	36
19.	Set of Dessert Knives, Ivory Ban-	6 00	12	21
20.	dles Superior quality Carving Knife, Fork and Steel. Sliver-Plated Pic Knife	0 00	14	-
-	Fork and Steel	5 00		20
31. 22.	Gentleman's Gold Pen and Silver	4 00	8	16
44.		3 00	6	19
23.	Solid Silver Fruit Knife	2 00	4	10
24. 95.		1 00	9	8
meg.	American Farmer	1 50		10
26.	Champion Mower and Reaper	200 00	200	
27	Champion Mower and Reaper Hill's Archimedean Lawn Mower American Gold Hunting-Case	25 00	40	60
40.	Watch	56 00	160	900
29,	Watch			
30.	Match	85 00		190
31.	Webster's Unabridged Dictionary	12 00		40
32.	Webster's National Dictionary	6 00	12	285
33.	Silver-l'lated Ice l'itcher	15 00	25	. 50
35.	Sliver-Plated Cake Basket	12 00	20	40
36	One doz. Silver-Plated Teaspoons	6 40	13	95
37.	Une doz. Suver-Plated Tablespoons	10.00	-	40
38	(extra quality) One doz. Silver-Plated Tab'e Forks	12 00	26	40
-	(extra quality)	12 00	20	40
39.	Child's Cup	3 00	6	

NOTE.—For any premium in this list, we can substitute, if desired, any agricultural implement for sale by any of our advertisers, agricultural or other books, nursery stock, &c., &c., of the same value as the offered premium.

Subscribers need not all be at one post office, nor is it necessary for the names to be all sent at once.

Send the exact money with each list of names, and state in each letter that you are working for a premium.

This offer of premiums holds good till April 30th, 1873, but any premium will be sent upon demand, as soon as the proper number of names is received, with the money, to entitle the sender to the premium designated, but no name will count unless the money for it is paid by or before the date the premium is claimed. There is no competition. Every one gets what he has worked for, and may make his own selection.

Both old and new subscribers count in these lists.

Specimen numbers, blanks, posters, &c. furnished on application.

REMIT ALWAYS, when possible, by registered letter, post-office order or draft.

"Going West."—We would like to hear of a case similar to that stated in the annexed paragraph, of any one who has emigrated to the West, under parallel circumstances, faring as well, or likely to do so, as this Mr. Stamp, who in his native country was an ordinary laborer, but who, instead of "going West" on reaching our shores, turned his face South, and went to work on shares, with the result told by the editor of Trewster's Exeter (Eng.) Flying Post, of Jan. 29, one of the English papers received at the office of the American Farmer:—

COTTON IN ITS RAW STATE.-Mr. Hemens. of St. Sidwell, has received from America a fine sample of cotton as taken from a plant. It was sent to him by a very fortunate Exonian Thomas Stamp, formerly in the employ of Mr. Luscombe, builder, of St. Sidwell as horsekeeper. Some two years since Stamp emigrated to America, and soon after his arrival engaged with a planter to give his services for a portion of the proceeds from the culture of the plantation; and at the end of the first year Stamp became part proprietor of the estate. He is now the sole proprietor of it, so he intimates in his recent letter to his friend in this His success has been so unequivocal that he anticipates in the course of a few years the blissful pleasure of being able to return to his own native country to enjoy the fruits of his perseverence and industry.

Several interesting communications intended for the Farmer reached our hands too late for insertion in this month's No. They will appear in our next issue. We request that our friends will be good enough to forward their favors as early in the month as practicable. But when delayed do not let that prevent their coming at all. They will be in time for the succeeding month, and many good things improve by keeping.

THE GEORGIA "AGRICULTURAL AND DIRECT TRADE CONVENTION," which held its sessions in February at Atlanta, adopted a memorial to Congress asking the National Government to undertake the work of uniting the waters of the Mississippi and the Atlantic Ocean by means of a canal from the Tennessee river to one of the navigable rivers of Georgia.

Resolutions were also adopted recommending the preparation of a book in English and foreign languages giving information about the resources of the South; that all railroad companies adopt low rates for immigrants, and buy up unsettled land along their lines for the settlement of immigrants, and that the land-owners encourage the movement by offering land at low rates and on long time.

While the Convention feels the importance of European imagination, it also wishes capital and skilled labor from the Northern States, and extends a cordial invitation to capitalists and skilled laborers from the North to come and assist in developing its vast resources. A report was adopted in favor of direct trade with Europe by means of the States uniting in subsidizing steamship lines.

#### Earth Barrows.

To the Editors of the American Farmer :

The difficulty of inducing country servants to throw slops, vegetable waste, contents of chamber kettles, &c., on the garbage pile, has induced the writer to suggest, that the common hod wheelbarrow (with alight modifica-tion) be employed for conveyance from the kitchen door to the pile. A box nailed to two poles would be a good substitute for the barrow (cost nothing comparatively) and conveyed by two persons. By having such a convenient depot near at hand, substituting earth for the water closet, and by strict injunctions on the part of the housekeeper, servants would be made the means of producing annual piles of poudrette more valuable than the purchased article. A covered barrel of sifted clay ought to be near at hand, and the mass frequently covered with the same; also the garbage pile should occasionally be cut down, mixed and frequently covered with earth. It will be apparent to every one that the contents of the barrow and pile ought to be protected from the summer sun and exces-

## The florist.

Floriculture, &c .- April, 1873.

By W. D. BRACKENBIDGE, Florist and Nurseryman, Govanstown, Baltimore county, Md.

#### The Green-House.

Old John Frost's stern embraces during the last four months, have left an impression on floral collections that will not soon be obliterated; for even under glass, where fire heat is applied, he forced his way to the destruction of many valued gems. The great secret in managing a green-house or conservatory during a severe cold snap, is to start the fires early in the afternoon so as to keep the temperature well up before the shades of night close in upon you. Any one who permits the temperature to get down to 35° inside, with the thermometer indicating 10° outside, will find that he will have to consume a double quantity of coal to raise the heat inside to a proper degree by not having attended to it earlier.

Another essential element in plant culture is water, the proper application of which is by no means well understood; we are led to make these remarks from the fact that the inquiry is so often put to us, to know how much and how often this or that plant should receive water. Now as there are so many circumstances and conditions as to seasons and situations connected with the many thousand kinds of plants under cultivation, no one can satisfactorily answer the question; long practice and close observation being the best guide.

Discontinue the use of fire leat in the greenhouse as soon as possible, by closing up the sash early in the afternoon, thereby confining heat enough to keep up the temperature during the night when it should always be 10 to 15° lower than during the day.

lower than during the day.

Camellias when in bloom should receive a partial shade and a free supply of water until after they have finished making their growth; we prefer shifting such as want it into larger pots just before they start to grow. Now is a good season to put on crown or side grafts of such as you want to duplicate. Azuleas, after they are done flowering, may be placed in larger pots; a suitable compost for them consists of sandy loam and a portion of vegetable earth and sand, observing to drain the pots well. Plant Achimenes and Tileas in shallow pots or hanging baskets; for the latter they are well adapted; it is not advisable to plant or start all the roots at one time, reserving a set over to come in later in the season. Keep turning round to the light such rapid growing plants as Fuchias and Geraniums—otherwise the specimens will become lopsided.

If any of the seed sown, or cuttings planted last month have failed, there is yet plenty of time to put in a fresh lot, don't get discouraged by having failed once, try again, there is no perfection in horticulture; practice and perseverence only secure the greatest success

#### Pleasure Grounds and Flower Garden.

We said enough about planting and pruning last month to carry any one on to the summer season. Should the severe frosts have drawn out the grass on the lawn, then a good top-dressing of wood ashes that have been composted with friable loam should be applied, on this sow a mixture of red-top, blue grass and white clover, brushing it gently in, after which it should be well rolled down.

Flower beds and borders should be dug up during dry weather, and every thing pushed forward against the planting senson, which should now be begun by d viding and making new plantations of such things as Phlores, Iris, Delphiniums, Pronicts, &c., &c. W. D. B.

#### Avenues-Permanent Flower Beds.

To the Editors American Farmer :

We resume the subject of avenue planting. &c., this month, being desirous of offering a few remarks upon some points we made in the last No. of the Farmer. We spoke of the desirability of wider drives; we do not of course mean that it is desirable or in good taste to have a drive fifty feet in width, leading to an eight-roomed cottage, but quite as much out of proportion is a ten or a twelve foot drive leading to a mansion. We spoke also of raised beds, and we know from experience they may, in some instances, be made very effective and at trifling expense. Take one, two or three-according to size-rough old stumps and place them in the centre of the bed, rough side uppermost, and plant climbers and trailers in the bed and allow them to run over the stumps, but do not—as we have often seen attempted—plant in the cavities of the stumps or failure must result. Some of the newer Clematis make splendid permanent beds in some places, and we doubt not would sucin some piaces, and we doubt not would succeed admirably here. We have seen most excellent effects produced by planting good sized beds with low growing Evergreens, Juniperus, Retinosporas, Box,&c. interspersing a few good flowering plants for the summer months. Do not plant Rhododendrons singly, nor in dry exposed places—I speak here of summer exposure. On the north side of a bill, in the shade of both at some distance from trees, if the soil is of, but at some distance from trees, if the soil be a nice loam or a peat soil, clumps of Rho-dodendron, Kalmia, &c., will thrive. Again, why should the hardy Azalea be entirely overlooked? Our native kinds, with some of the more beautiful Ghent varieties interspersed, are charming when in bloom, but of all permanent beds, we have seen nothing to surpass a bed of roses pegged down. Strong growing, free blooming varieties, suit this latitude, and the beds well made, properly planted, and the growth kept pegged down to the earth, and anccess is certain.

Keep your lawn and pleasure grounds neat and tidy; remove dead branches and decaying leaves; and prevent your grass getting bare at the bottom by mowing with the scythe or machine every two or three weeks.

## The fireside.

#### RUSTIC POEMS.

#### A WINTER EVENING.

BY MR4. II. BUCKNES.

Kind memory I bow to thee, Thou lovely vestal maid; O swing thy censer over me, Bid present pains and sorrows fice, And make the future fade!

'Tis done—I press thy soil once more, My own, my native land; I tread again thy rugged shore, I hear thy fashing breakers roar Along thy sea girt strand.

And now beside my father's hearth,
A careless petted child,
I listes to his tales of mirth,
And deem his landmarks bound the earth,
While I am thus beguiled,

The winter snows are piling high Along the meadow brown, The angry winds go screaming by, Half like a hunted human's cry When bloodhounds bay him down.

But I am safe—the cottage fire Is glowing soft and warm. Red tongues of fiame are leaping higher, As if they proudly would aspire To battle with the storm.

The yellow fruit is passing round,
The nut-brown cakes and cheese,
The amber cider, bubble-crowned,
That makes the quickened pulses bound,
Then beat with lazy case.

The tenants of the barn and fold Must have their nightly fare; My father wraps me f our the cold, And takes me with him to behold For them his kindly care.

While flickering shadows dimly fall He tells a mournful tale Of Jesus cradled in a stall, The King of Kings and Lord of all, Whom shepherds came to hait.

The day is past, the moon's pale crest is shining caim and fair, My father takes God's volume blest, And reads of our immortal rest, Then bows in humble prayer.

Upon my tender mother's knee I lean my dreamy head; Bright days of innocence and glee, When I from sin and grief was free, O wherefore have ye sped? Paris. Texts.

MARCH AND APRIL.—"And winking buds begin to ope their eyes." Human hearts are expected to sympathize with all the beautiful teachings of nature. When more beautiful and touching than in spring? The genial sun and the fierce winds strive for the race. April is overtaking March, when the peach and apple blossoms are unfolding. The streams and ponds are lively with the croaking frogs. Open your windows, filled with blooming plants, on a mild day, and the busy early working bee will accept their inviting sweetness. The early risers will hear the first glad notes of welcome to spring from the bluebirds. Nature works with precision and certainty, slowly unfolding her secrets. Many

H. B.

of the commonest things are least understood By what mysterious process do the tiny rootlets of the nightshade distil the deadly poison, or whence the fragrance of the violet?

March snow-clouds and sleet-storms alternate with April sunshine. Insects and flowers will rouse to activity and crowd upon us. It is a fact that on the twentieth of April the first note of the whip-poor-will is heard:

"Yet wherefore strain thy tiny throat While other birds repose?" What mean thy melancholy notes? The mystery disclose."

(For the American Farmer.)

#### Tennyson's Flowers.

Love of the beautiful being one great source of poetical inspiration, it is not surprising that nearly all poets have been devotedly fond of flowers. In the time of Charles I, Herrick bewailed the "fair daffodils" in some of the most plaintive lines ever written; and our American poets have addressed many truly beautiful verses to

"-the flowers so blue and golden, Stars that in earth's firmament do shine."

Sir Walter Scott took these children of the woods and fields into his large heart, as though they were indeed little children, tender and winning. But where was there ever a heart more ardently in love with nature-more perfeet in its sympathies with everything lovely, whether animate or inanimate! It is said of him that, before describing in his poems any important locality,—such as the surroundings of a castle or ruin,-he always visited the place, and noted accurately the smallest features of the landscape, even to the color and shape of each tiny plant at his feet. And any one who observes his mention of flowers in his description of Loch Katrine, for instance, will own that his painstaking was rewarded. They are painted with the dew on, and give life and freshness to the picture.

There are some poets, so called, whose flowers remind us of the coarse lithographs, where daubs of red and white paint are about as much like the roses and lilies they are intended to represent, as the crooked lines in a child's drawing, labelled, "this is a horse," are like the real animal. Others,-mere rhymsters perhaps,-who speak or sing of flowers, merely call their names, without attempting to bring before us any peculiar color or perfume that may distinguish them. Tennyson's poetry, I think, owes much of its charm, its dainty gracefulness and finished sweetness, to the flowers scattered up and down through his pages, filling them with delicious odors of lawn and wood. He does not wreathe them into allegorical lessons, like Wordsworth; nor hunt for similes and metaphors to match them: but just introduces them in propria persona the real living flowers, unconcealed by any emblematical mask. And how he seems to love them! One can fancy the laureate watching day by day for the unfolding of the perfect rose, or stooping in his rambles to examine

" — the oat-grass and the sword-grass And the bullrush in the pool."

We can imagine him sitting down to paint in delicate colors

"-bramble roses faint and pale The long purples of the dale;"

which he has just gathered in some woodland stroll; for we sometimes think he must cer-tainly be both artist and botanist, so accurate seems his knowledge. The poet's home in the Isle of Wight, we may well believe, is amidst a profusion of flowers, some of which are always bright and beautiful; from those which, in writing to a friend he calls "the wreath of March," viz: Crocus, Anemone, Violet, to the last flower of autumn. And he delights in the mention of them all; as in-deed he does of trees; and his trees too are always individualized,-we cannot mistake the species.

Tennyson has a genuine Englishman's love for the violet. How this line in its simplicity seems to come straight from his heart:

"O sweet is the blue violet that comes beneath the akles!

To read it makes one long for the sweetest of all flowers. In his In Memoriam too, he says

"'Tis well, 'tis something; we may stand Where he in English each is laid, And from his ashes may be made The violet of his native land."

The following verse seems to me a beautiful expression of the charm of association belonging so particularly to these favorites of chilchood

"The smell of violets, hidden in the green Poured back into my empty seal and frame The time when I remember to have been Joyful, and tree from blame."

And here are some pretty conceits-a blt of fairy love perhaps:

> " Hast thou heard the butterffles What they say between their wings? Or in stillest evenings, With what voice the violet woos. To his heart the silver dews? Or when little airs arise How the merry blue bell rings To the mosses underneath? Hast thou looked upon the breath Of the lities at suprise ?"

The poet laureate introduces flowers and flowering trees everywhere, whether he is describing parks and ordered gardens, a woodland dell, or the imaginary landscapes of the fabled lotus-land: and they are always appropriate to the place. We have the gorgeous Eastern bloom and "thick myrrh thickets blowing round" in the gardens of Good Haroun Al Rashid. Of the little May-queen's cottage he says:

"The honeysuckle round the porch has woven its wavy bowers, And by the meadow trenches blow the faint sweet cuckoo flowers, And the wild marsh marigold shines like fire in swamps and hollows gray."

This same little May-queen Alice had a passionate love for flowers, and hence it is not surprising to hear from her bed of mortal illness, through all its beautiful resignation, the pitiful lament—

"Wild flowers in the valley for other hands than ' mine!"

And the poet, who could understand the dying Christian's clinging to the beautiful of earth, has giving a touching solace in his description of the grave. Where was it ever made to look so unrepulsive as in the Dirgs:

"The gold eyed king cups fine,
The frail blue bell peereth over
Kare broidery of the purple clover.
Let them rave.
Kings have no such couch as thine,
As the green that folds thy grave."

Many of Tennyson's heroines are associated in our minds with some flower. The delicate fascinating pensiveness of "rare pale Margaret" is compared to the perfume of the cuckoo-flower. Bewitching little Lilia, who gave inspiration to the supposed composers of the Princess, is called "the mignonette of Vivian-place." And the first snow drop of the year is aptly chosen for the holy St. Ag-Who thinks of the Gardener's Daughter, nes. in the perfection of her youthful bloom, without remembering the Eastern rose; while she, "a rose in roses, mingled with her fragrant toil." And Maud, in the glory of her high born beauty, is styled "queen rose in the rose-bud garden of girls." Of her it was said, toil." with the extravagant praise of a lover-

"From the meadows your walks have left so sweet, That whenever a March wind sighs. He sets the Jewel print of your feet In violets blue as your eyes"

Last but not least of these flowers of womanhood in Tennyson that we may mention, is

> "Elaine the fair; Elaine the lovable, Elaine the lily maid of Astolat."

Somehow the simile does not seem hackneyed, as the beautiful maiden of Ancient Britain is brought forward on the gradually swelling musle of this grand Idyl. Lilymaid! It is just that guileless simplicity; that shining purity of heart, that makes her so exquisite; that forces us to love her, and forgive the unsought affection she cherished for Launcelot.

The variety of flowers spoken of by Tennyson is something marvelous. None that he ever set eyes on appear to have been forgotten, from the "cowslip and crowfoot over all the hill," to

"Oleanders flushing the beds Of slient torrents, gravel spread."

If you love flowers, read Tennyson, and you will be continually delighted with their fragrance. If you love them not, then read him, and you will become fond of them, for his pages are redolent of their sweetness. If the melancholy days are come, and the flowers of the garden are dead, and you sigh for a bouquet, then turn to your Tennyson and you

may almost imagine yourself surrounded by the floral wealth of summer. And perhaps you may become inspired with a wish to raise flowers for yourself. The time thus bestowed may be well spent, and the labor is elevating and delightful. To all so occupied the poet promises his blessing; at least we may so interpret one of his lines, if we leave out the context. He says,—speaking through one of his characters,—'Live happy; tend thy flowers; be tended by my blessing." G. W. L.

#### Mr. Gilmer's Letters-Future of Va.

To the Editors of the American Farmer:

If I have not already encroached too much upon your time and space, permit me, if you please, through your columns briefly to express the unfeigned pleasure it gave me to read once more, after a long silence, an article from the pen of Mr. Gilmer, which I found in the last number of the "Old Farmer" under date of February 8th. It came as good news to a thirsty soul, and with great avidity did I scan every line of his truly welcome missive, which was only marred by learning the cause of his silence grew out of a protracted attack of rhumatism. We sincerely hope now that as the rigors of stern winter are dispelled by the soft and genial air of spring, he may come out of winter quarters revived and strengthened for his work, and that we may be favored by frequent intellectual and practical visitations, which ever flow from his pen. We shall look forward with no little pleasure to reading his sage article on "Buckwheat and Peas," and hope he with the many other able contributors to your columns may soon favor vs with an article on "Economy and close attention in all things,"as suggested in his letter. We will say, however, by way of parenthesis, that we know of no one more suited or more adequate to the task than Mr. Gilmer himself, and we would be pleased to hear also from him on the subject, for in a multitude of counsel their is wisdom.

I will add also that the Christian and patriotic spirit, Mr. Gilmer's letter breathed throughout, was particularly refreshing and encouraging to me, as one of the sons of the Old Dominion. It is very natural and reasonable to suppose, that after the close of a long and gigantic war unparalleled in the world's history, which, as a mighty tornado, has swept over our once happy and prosperous country, shaking it from centre to circumference, that gloom and despondency should now in the calm, amid the wreck of her lost sons and fortune, settle upon the hearts of her sorely oppressed people. But still thank God our people have much left to encourage them. We have still a nucleus around which we may fondly cluster, and around which we may build our future hopes and restore to former beauty and grandeur our noble old state which God has so lovingly smiled upon in days gone by. We have still the bright star of Promise to guide us, and if we will only perseveringly follow that star, we shall in temporal as well as in spiritual things. "reap if we faint not." We fully coincide with Mr. Gilmer in all that he says in reference to the soil, water, climate and beat materials to make our old state the first in the Union; let us prove ourselves worthy of the task, and as descendants of our worthy sires, let us weep no longer over the results of the past, but put our shoulders to the wheel and onward and upward, surmount the many barriers that may await us, and drive the noble old car of state to her merited glory and renown, and amid the heat and burden of the contest, let us keep in view as an impetus to the work the sage advice of the old heathen poet, Horace "Nil mortalibus arduum est," and all will be well.

But, Messrs. Editors, I find my pen is involuntarily leading me astray, as I promised to be brief, and must therefore, for the present at least, drop the delightful theme, or else I shall be doing violence to my word. I have only to hope that your patience in any case will not cease to a virtue. In conclusion, Messrs. Editors, allow me to thank you for the many valuable and timely hints you give us, which we treasure up with the greatest care. Long may you and Mr. Gilmer be spared to your country as great central luminaries around which lesser lights may revolve. May you signally prosper in your arduous enterprise as the reward of your untiring efforts to do good.

Very resp'y, yours, &c., JAMES SMITH.
Northumberland Co., Va., March 18, 1873.

#### Special Manure for Peach Trees.

Mr. P. H. Foster, of Babylon, N. Y., in the Horticulturist, gives the following formula for a manure for Peach Trees:—

"I have used, the past year or two, a special manure on my peach trees with marked success. So far as I have tried it, I have found it equally good for vegetables, and I see no reason why it is not a good manure for fruit trees of all kinds; in fact, I have known it to bring peach trees that were dying with yellows, back into a bearing condition. I think very likely it will prevent the summer blight in pears, I intend to try it the coming season on small pear stock. I use for each acre, broadcast, the same quantity as for an acre of potatoes, and the following are the proportions:

120 lbs. Nitrate of Soda.
80 " " Potassa.
160 " Superphoshate of Lime.
160 " Sulphate of Lime.

The N. of potassa should be ground. After mixing the above together, add three or four parts of fine muck. When applying the mixture for the benefit of peach trees, spread evenly as far as the roots extend, and before a rain."

Where these chemicals are not readily obtainable, a compost of wood ashes, bone dust, and woods mould make an excellent application, and one more suitable than animal manures.

#### DOMESTIC RECIPES.

FROZEN CUSTARDS.—This is a nice dish for dessert, and very easily prepared. Boil two quarts of rich milk; beat eight eggs and a teacupful of sugar together, and after the milk has boiled, pour it over the eggs and sugar, stirring all the while. Pour the whole mixture into your kettle and let it come to a boil, stirring it constantly, then take it off the fire and let it become cold. Flavor with whatever essence you prefer, then freeze it.

POTATO PUDDING.—One pound of mashed potatoes, three-fourths pound of butter, three-fourths pound sugar, four eggs, one gill brandy, one gill rose water, one gill cream; work the potatoes and butter well together; beat the sugar and eggs to a froth; mix them well and bake in a fresh oven.

Scalloped Oysters.—Scald the oysters in their own liquor; take them out; lay in a deep dish, sprinkling on cracker crumbs, pepper and salt, and small pieces of butter; mix a little butter and flour together, and stir into the liquor; then fill up the dish with it and brown in the oven.

M. C. J.

To Make a Hen's Nest (A Fancy Dish.)

—Take half a dozen eggs, make a hole at one end and empty the shells, fill them with blancmange; when stiff and cold take off the shells; pare lemon rind very thin, boil in water till tender, then cut in thin strips to resemble straw, and preserve in sugar; fill a deep dish half full of jelly or nice cold custard, put the eggs in and lay the straws, nest-like around them.

Sauce for the above Pudding.—one cup of butter, one cup of sugar, yolk of one egg; beat together and stir in one cup of boiling water. Let it come to a boil, and when ready for use, flavor to taste. A nice dessert is made by filling coffee-cups loosely with strawberries, and pouring over them Graham flour, mush, or instead, thicken sweet boiling milk to a consistency which is thin enough to fill the interstices between the berries, and yet thick enough to be firm when cool. Turn out and serve up with cream and sugar.

To STEW CRLERY.—Cut the stalk into bits an inch long; stew for half an hour in milk and water, half and half, with a little salt; when soft, turn off, and pour over it some boiling cream; season to taste with salt and pepper, and serve hot.

We acknowledge the receipt from the old established and reliable house of Messrs. D. Landreth & Son, of Philadelphia, of an assortment of vegetable and flower seeds, which we will duly test, and which doubtless will do credit to the well-sustained reputation of this firm for the purity and freshness of the seeds sent out by them.

"THE TABLE" is a new monthly, published in N. Y. at \$1 a year, designed "to promote the refinements of the table," and edited by Barry Gray.

#### Baltimore Markets, Mar. 20.

Breadstaffs—Flour—Howard St. Super, \$5.00 a6.25; do. common to fair Extra, \$6.503.7.09; do. good to choice do., \$7.253.7.75; do. Family, \$8.10.00; Usio and Indiana Super, \$5.50a6.25; do common to fair Extra, \$6.50a7.00; do. good to choice do., \$7.25a7.75; do. Family, \$8a10.00; City Mills Super, \$5.50a6.25; do. low to medium Extra \$7.50a8.50; do. Ho brands do., \$9.50a9.75; City Pancy brands, \$11.00a12.00; Fine Flour, \$5.60a4.75; Rye Flour, \$5.00a5.50; Corn Meai, \$3.15a3.25.

Wheat—Receipts light, and market duil. We quote Southern fair to prime Red, 170a195 cents; choice Amber, 200a205 cents; prime White, 210 cents; choice Western Red, 165a175 cents; do. Amber, 185

Conn.—Receipts large and prices steady; Southern White, prime, 62263 cents; do. Yellow, 52250 cents; Westeru mixed, 59 cents. Gata.—Dull. Sale- of Southern at 45248 cents, and

Western mixed, 59 cents.

Oats—Dull. Sale: of Southern at 45a48 cents, and Mixed Western at 46a47 cents.

Rye—Market duil. We quote at 85a93 cents.

Broom Corn—2 to 6 cents for fair to choice.

Cotton—Very little doing, and prices heavy. We quete good ordinary, 18% cents; low middling, 17% cents; middling, 18% cents. Timothy, 228a33; Maryland, 233a55 per fou. Hye straw, 239; Oat straw, 240; Wheat straw, 230 per ton.

Live Stock—Beef Cattle—Market quiet. We quote best on sale, 6a7% conts; generally rated first class, 5% 6% cents; fair quality, 4% 65% cents; ordinary thin steers, oxen and cows, 3% a4% cents.

Hogs—Still fed, 6% a7% cents; corn fed, 7a7% cents, est.

Hegs—Still fed, 6%a7% cents; corn reu, maxcents, net.

Sheep—Receipts light. Common to fair, 4%a6
Sheep—Receipts light. Common to fair, 4%a6
cents; fair to good, 6a7 cents; gross.

Mill Feed—tip Mills Brown Stuff, 25a26 cents;
Middlings, light, 26a20 cents; heavy, 45a25 cents;
Molasses—Mascorado, 3xa38 cents; Porto Rico,
45a60 cents; New Orleans, 75a50 cents. Nyrups—
Calvert, 55a60 cents; Maryland, 45a46 cents; Canton
Sugar House, 23 cents per gallon, in bbis

Onions—Light supply. Rcd, 36, and White, 37
ner bbl.

Pointoes—Prices well maintained. Early Rose and Goodrich, \$2.75a4 per bbl.; White Peach Blows, \$5.75 per bbl.; Maine Carters, \$1.10 per bushel from the wharf.

the wharf.

Provisions—Bulk Shoulders, 6½ cents; RibSides, 7½ a8 cents; Clear Hib Sides, 8½ a9 cents;
Bacon, Shoulders, 7 cents; Hib Sides, 9 cents; Clear
Rib Sides, 9a9½ cents; Hams, 18a16 cents; Lard, 10
a12 cents; Moss Pork, \$16.50;
Rice—Carolius, 9 cents; Rangoon, 8 cents.
Salk—Ground Alum, \$1.70a1.80 per sack; Fine,
\$2.75a2.80 per sack; Turk's island, 40 cents per busSeedis—Clover Seed, \$660.25; Timothy, \$2.50a2.75;
Orchard Grass, \$2.50; Ky. Bue Grass, \$2.75; Flax
Seed, \$2.00.

Orchard Grass, \$2.50; Ky. Blue Grass, \$2.75; Flax Seed. \$2.00.

Tobacco—Market quiet. Md., sound to good-common, \$6.50a8; do. good to fine brown, \$10a12.50; do. fancy, \$14a39; Vo., common to good lngs, \$8.75 a9.75; do. common to mediam lngs; \$9.50a11.50; do. good fine leak, \$12a12; do. selections, \$12.50a14.50.

Whiskey—92 cents for Western.

Wool—Market duil. We quote burry, 25a30 cents; good unwashed, \$53a50 cents; pulled, \$5a58 cents; fleece washed, 55a56 cents; tub washed, 55a60 cents.

#### NEW ADVERTISEMENTS.

Massey & Hudson-Roses and Bedding Plants.
J. H.—Situation Wasted.
W. S. G. Baker-Prize Fowls.
Baugh & Sons-Baugh's Haw Bone Phosphate.
Wim. Bouman-Eggs for Hatching.
A. M. Purdy-Purdy's Smail Fruit Instructor.
T. S. Cooper-Eggs for Hatching.
J. J. Thomas & Co.—Thomas's Smoothing Harrow.
Agra—Situation Wanted as Gardener.
Moro Phillips—Super-Phosphate of Lime.
Grover & Baker Sewing Machine Comprny.
Griffin & Hoffman—Newspaper Advertising Agents.
J. J. Turer & Co.—Hone Super-Phosphate.

"Excelsior."
John G. Durborow-Agricativanal Implements. John C. Durborow-Agricultural Implements.

E. Whitman & Sens—Agricultural Implements.
Morris & Trimble—Balto. Burr Millstone Works.
Walton, Whan & Co.—Haw Bone Super-Phosphate.
Samuel Child & Co.—House Furnishing Goods.
Dannead & Son—Steam Engines and Bollers.
Geo. C. Hicks & Co.—Hetort and Fire Brick Works.
J. W. Kerr—Apple Trees.

The value of Purdy's Small Fruit Instructor, advertised in our colums, may be judged from the following subjects which it contains:

"Small Fruits for the Family." "Advice to New Beginners." "What we do with Ten Acres." "The Homes of Farmers." "Profits of Small Fruits." "Secrets in making Small Fruits Profitable." " Marketing Fruits." "Gathering the Fruit." "Shipping Fruit that Perishes Quickly." "Size of Shipping Crates." "A plan for Laying out a Fruit and Vegetable Garden of 20 Acres." "A plan for Laying out a Small Family Garden." "Stands for Gathering Fruit." "Protection from Winds." "Raising New Sorts." "Manures." "Liquid Manures." "Preparation of Soil for Strawberries, and Different Methods of Growing-Same for Raspberries, Blackberries, Currants and Grapes." "Fig Culture." "Plan of a Fruit Drying House." "Fruit Boxes," "Packing Cases," &c., &c.

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PHILADELPHIA, FOR THE SALE OF

Raugh's Raw Bone Phosphate, Pure Ground Bones, And Fertilizing Supplies.

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No. 19 SOUTH ST., BALTIMORS. ap-2t

Eggs for Hatching from Pure Bred Fowls, White Face Black Spanish ..... 

varieties. Av and WM. Buw M. Bur fore being sent.

A PPI.E TREES.—A very select collection of varieties, suited to Maryland and the South, 3 and 4 years, Sac, \$10 per 100. Peach, Pear, Plum, Apricot, Quinec, Nectarine and Shade Trees in great variety. haspberries, Doolittle & M., Cluster, \$15 per M. Houghton Gooseberry, true, \$50 per M. Colossal Asparagus, \$4 per M. \*Also, Grape Vines, Currabts, Blackberries, Rhubarb, &c., &z. 25 varieties of bardy flowering shrubbery, \$2 per dos., \$15 per 100. Price List free.

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(formerly KERP & Kann.) Denton, Caroline co., Md.

#### TOBACCO PLANTERS!

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1873.

Fourteen years' experience in the growth of Tobacco in Maryland and Virginia has demonstrated beyond doubt that "EXCELSIOR" has no competitor in the growth of that staple. It is the unanimous opinion of the Tobacco planters of Maryland "that from the application of EXCELSIOR the crop is heavier and of finer quality, cures earlier and better, and is not so liable to suffer from drought as from Peruvian Guano." We refer to every Tobacco Planter in Maryland. Uniformity of quality guaranteed by the manufacturers.

PRICE \$60 PER TON.

J. J. TURNER & CO., 42 Pratt St., Baltimore, Md. CAUTION.—The popularity of "EXCELSIOR" as the only reliable substitute for Peruvian Guano has induced unscrupulous parties in this and other cities to use the name "Excelsior" to sell their worthless compounds. Every bag of genuine "Excelsior" has our name on it in RED LETTERS. All others are counterfeits.

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COE'S Unrivalled SUPER-PHOSPHATE, \$50 per Ton.



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Send for circular and price list.

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Make a specialty of forwarding plants by mail. Our prices are so low, and our method of packing so simple and secure, that many persons in the large Northern Cites prefer to get their plants from us, when they have many first class establishments at their homes. This is many first class establishments at their homes. This is evident from the fact, that we have customers in New York, Philadelphia and Boston, who buy of us year after year, and siways express the greatest satisfaction with their purchases. We ship plants at any time, taking no account of the weather, and never hear of any being injured—for instance read the following.

"SACO, MAINE, February 22d, 1873.

" MESSES. MASSEY & HUDSON:

Gentlemen:-The Roses ordered by me a few days ago, Gentlemen:—The Roses ordered by meaner units ago, arrived by mail yesterday morning, in good condition, although the mercury stood at zero.

Yours respectfully,

J. W. Hobson."

We will send by mail, post-paid, any one of the following selections for ONE DOLLAR:

No. 1—7 Monthly Roses, & Verbenas. No. 2—6 Roses, & Verbenas, 2 Zonal Geraniums. No. 3—5 Roses, & Verbenas, 2 Zonal Geraniums, 1 Double

Geranium No. 4-4 Roses, 5 Verbenas, 2 Zonal Geranfums, 1 Double

Geranium, 1 Smilax. No. 5-3 Roses, 5 Verbenas, 2 Zonal Geraniums, 1 Double

Geranium, 1 Smilax, 1 Fuchsia.
No. 6-2 Roses, 5 Verbenas, 2 Zonal Geraniums, 1 Double

Geranium, 1 Smilax, 1 Fuchsia, 2 Carnations. For FIVE DOLLARS, we will send the Most Com-

PLETE ASSORTMENT ever offered for the money, as follows, Five Everblooming Roses, 10 Verbenas, 2 Zonal Geraniums, 2 Scented Geraniums, 1 Double Geraniums, 2 Fuchsias, 2 Carnations, 3 Alternantheesa, 1 Begonia, 1 Scarlet Saçe, 2 Cigtr Flowers, 1 Heilotrope, 1 Smilax, 1 Lophospermum, 1 Maurandia, 1 Abutlion, 1 Mesembryanthemum, 1 Coleus, 1 Achtyanthus, 1 Ageratum, 1 Malernia Odorata, 1 Pansy, 1 Double Violet, 2 Filea Serpaciolia, 1 Tradescantia, 1 Veronica, 1 Torenia Asiatica, 2 Panicum Variegatum, 1 Gnaphalium Lanatum—making the most complete outfit for Flower Beds and Harrine Baskets. Hanging Baskets.

All orders shipped in order of their reception. make no changes in the above collections, and would refer those who do not wish plants as above to our Price List, which will be sets free to all applicates. So We cannot send less than \$1 worth of plants by mail.

MASSEY & HUDSON. Chestertown. Kent Co., Md

#### EGGS FOR HATCHING.

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I am now prepared to book and furnish eggs from my imported and home bred LIGHT AND DARK BRAHMAS

#### AND PARTRIDGE COCHINS.

Having quite recently bought of Jos. M. Wade, Esq., (successor fo Wade & Henry.) his entire breeding stock, both imported and home bred DARK BRAHMAS; also of Philander Williams, Esq., his entire stock of PART-RIDGE COCHINS. These with my last year's importation, give me one of the

#### Finest Flocks in America.

Also, for sale, BRONZE TURKEY, ROUEN, and CAYUGA DUCK EGGS.

Orders solicited and satisfaction guaranteed.

By My mode of packing eggs insures their safe carriago. T. S. COOPER, Linden Grove Stock Farm, Coopersburg, Pa. Address

A few choice tries of Partridge Cochins for sale at able prices. ap-tf

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Sixty-four pages, price 25 cts., past paid. Tells how to plant and grow all kinds of Small Fruit successfully, both for market and home garden. John J. Thomas, Henry prant and grow all kinds of small Fruit successfully, both for market and home graden. John J. Thomas, Henry Ward Beecher, Judge I. S. Harris, of Ga., and others, say it is one of the most complete and practical works ever printed. Friee List of Flants, retail or wholesale, Free to all applicants. Address
A. M. FURDY, Palmyra, N. Y.
Or, PURDY & HANCE, South Bend, Ind.

P. S.—Specimen copies of the Fruit Recorder and Cottage Gardener, a dollar monthly, (A. M. PURDY, Editor,) Free to all applicants. It speaks for PUBDY, Editor,) Free to all applicants. It speaks for itself. To see a copy is equivalent to subscribing. ap-2t

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WISHES A SITUATION, in a Christian family, to take charge of and teach young children, or to assist in the management of a FARM HOUSE. Salary not so much an object as a comfortable and permanent home.

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A PLACE AS GARDENER by a competent man, possessing first class references, both in England and the United States. Or, he would rent a FARM or take the management of an estate.

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#### Partridge Cochin Fowls and Eggs.

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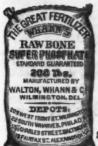
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Land manured with this Super Phosphate will produce large crops of

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Diamond State Fine Ground Bone for sale at above stores.

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A N A L Y S I S: 2.83

Soluble Phosphate of Lime. 29.51

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Composed of Bones and Guano dissolved in Sulphuric Acid, it is richer in Ammonia and Soluble Phosphates than any other fertilizer sold, except our "EXCELSIOR," and is made with same care and supervision. Uniform quality guaranteed. Fine and dry, in excellent order for drilling. Packed in bags.

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# "LOCK STITCH" or "ELASTIC STITCH" Sewing Machines,

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Importers of CHINA, GLASS, TABLE CUTLERY, FAMILY HARDWARE, PLATED GOODS, and Dealers in TIN, WOODEN and JA-PANNEJ WARE and KITCHEN FURNITURE of every

WATER COOLERS of our own make. ICE-CREAM FREEZERS of the most approved kinds. PATENT ICE PITCHERS, all qualities, and each warranted to be as represented.

New and Reautiful Patterns of

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Our arrangements made in person with the leading manufacturers in Europe and this country, and having resident agents in France and England, give us every advantage in obtaining our supplies; manufacturing the c.mmon class of goods, such as

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Buying entirely for eash; with a thorough knowledge of the business in all its details; purchasers may rest assured that we can and will supply their wants as favorably and upon as good terms as any house in New York or elsewhere.

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DAVID'S PATENT PULVERIZING MILLS, for Guanos, Bones, Ores, Clays; also Flour Making.

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## SUPER-PHOSPHATE OF LIME.

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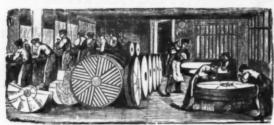
Reduced in price, and improved in quality by the addition of Potash. This article is already too well known to require any comments upon its Agricultural value. Thirteen years' experience has fully demonstrated to the agricultural community its lasting qualities on all crops, and the introduction of Potash gives it additional value. PRICE \$50 PER TON, 2000 LBS. biscount to Dealers.

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SUPERIOR TO PERUVIAN GUANO. Patented April 29, 1860. Manufactured by MORO PHILLIPS. PRICE \$50 PER TON, 2000 LBS. Discount to Dealers. For sale at Manufacturer's benots:

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# Old Established Depot for Standard Fertilizers.



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# Pacific Guano Company's SOLUBLE PACIFIC GUANO.

JOHN S. REESE & CO., No. 10 SOUTH STREET, BALTIMORE, Md., GENERAL AGENTS.

CAPITAL ......\$1,000,000.

The use of this Guano since its introduction in 1864, and the annual increase of its consumption from a few hundred tons the first year of its use, to many thousands of tons, is the best attestation to its value as an efficient agent for the increase of the products of agricultural labor, as well as to the integrity of its production.

The large capital invested by this Company in this business, and its unusual facilities, enables it to furnish a fertilizer of the highest excellence at the lowest cost to-consumers.

It is the policy of the Company to furnish the best fertilizer at the lowest price, and look to large sales and small profit for reasonable returns on Capital employed.

This Guano is sold by Agents of the Company in all the markets of the Middle Southern and Gulf States.

Price in Baltimore \$50 per Ton 2000 lbs.

feb-3t

JOHN S. REESE & CO.

## COE'S

## Super-Phosphate of Lime

BALTIMORE, Mp., January 8th, 1873.

MR. ANDREW COE, BALTIMORE.

Sir: - In answer to your note of 17th Dec., 1872, asking me to inform you of the effect of the three tons and a half of your Super-Phosphate of Lime, purchased from you the past Spring and Fall, had upon my crops, I will state the effects as briefly as I can:

Having used your Fertilizer on my crops in 1871, with much satisfaction, particularly on

o tatoes. I purchased no other kind the past season.

Having on hand a small quantity of another fertilizing compound, of popularity among farmers, which cost \$60 per ton, I determined to test its relative value with your Super-Phosphate of Lime, and on the 3d June last I fertilized a row of potatoes, (King of the Earlies,) 90 yards long, about the middle of a small lot of good ground; the rest of the lot was fertilized with your Super-Phosphate of Lime. I instructed my farmer, who is an excellent seedsman, to put an equal quantity, as near as he possibly could, of the two kinds of Fertilizers on each row, as I intended to test the relative value of the two kinds of Fertilizers, to find out which was the cheaper of the two. I was present at the planting and marked the row. I was present ent also at the digging of this and an adjoining row; and was very particular in keeping the product of each row separate. The row fertilized with your Super-Phosphate of Lime produced 137 lbs., and the other produced but 126 lbs. Taking yours at \$50 per ton, the other is 20 per cent. higher, at \$60 per ton; and, therefore, to have returned me at an equivalent for my outlay, should have produced me 20 per cent. more of potatoes, which would have been 164.40 lbs. instead of 126 lbs.; or in other words, a fraction more than 30 per cent. below an equivalent in value, compared with your Super-Phosphate of Lime. I put it on my wheat this Fall, about a bag of 167 pounds per acre, and my wheat looks quite as promising as any on the Liberty road, between my farm, 14 miles out, and the city of Baltimore.

There was another demonstration on my farm, the past season, of the relative value of these two Fertilizers on potatoes. I rented two acres of land to two neighbors on shares. The lot faced the south; I plowed it in one land; the north part from the finishing furrow, 294 rows, was planted 25th May, and fertilized with Coe's Super-Phosphate of Lime; the south part, 32 rows, was planted 29th May, and fertilized with an equal quantity of the \$60 per ton compound; it should be borne in mind that the south part had the advantage of the furrows being thrown down hill and was, consequently, better plowed than the north side, all the furrows of which were thrown up hill. The whole lot was planted in Peach Blow potatoes, and both parts well cultivated alike. The season for potatoes in our section of country was very unfavorable, owing to the excessive dry weather, and the ravages of a small worm, which works its way from the steam above ground, to the pith of the root, often penetrating the end of the root; the presence of which may readily be known, by the stumpy vine and curled

Although this lot was not intended as a comparison of the relative value of the two fertilizers, the contrast is still more striking than in the two rows planted by myself, as the figures will show: The 29½ rows produced 49 bushels, and the 32 rows produced only 46 bushels: whereas the 32 rows should have produced 53 bushels to be equal in quantity to the 29½ rows; then add 20 per cent. to the 53 bushels, the 32 rows should have produced 63 bushels to equalize the value of the two Fertilizers, making a difference in favor of your Super-Phosphate of Lime of 38 per cent. in money value. I put it upon my corn; the effect was quite satisfactory. I put 100 lbs. per acre on poor land, sowed in buckwheat, on the 4th July, and without any exception, the crop was as fine as any I ever saw. Upon roots crops, I consider It unrivalled in its effects; and for crops generally, I believe it is much cheaper for the farmer than any other Fertilizer offered to the public.

Several of my neighbors who have been familiar with my crops the two years past, have signified to me their intention of using your Super-Phosphate of Lime the present year. I will probably need about five tons for my own crop; I will not use any other kind, so long as you keep up the present standard in quality, and the relative value in price, compared with other Fertilizers, unless I shall find another, which, by actual comparison, will "pay better." I intend the coming season, to make careful comparison with your Super-Phosphate of Lime and other

compounds in the market, on corn and wheat.

Very respectfully,

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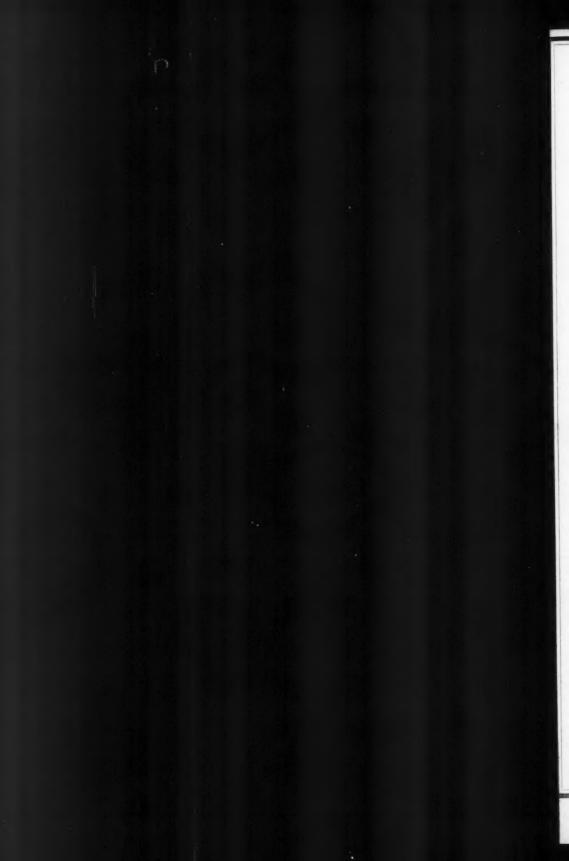
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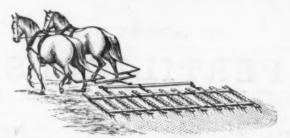
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